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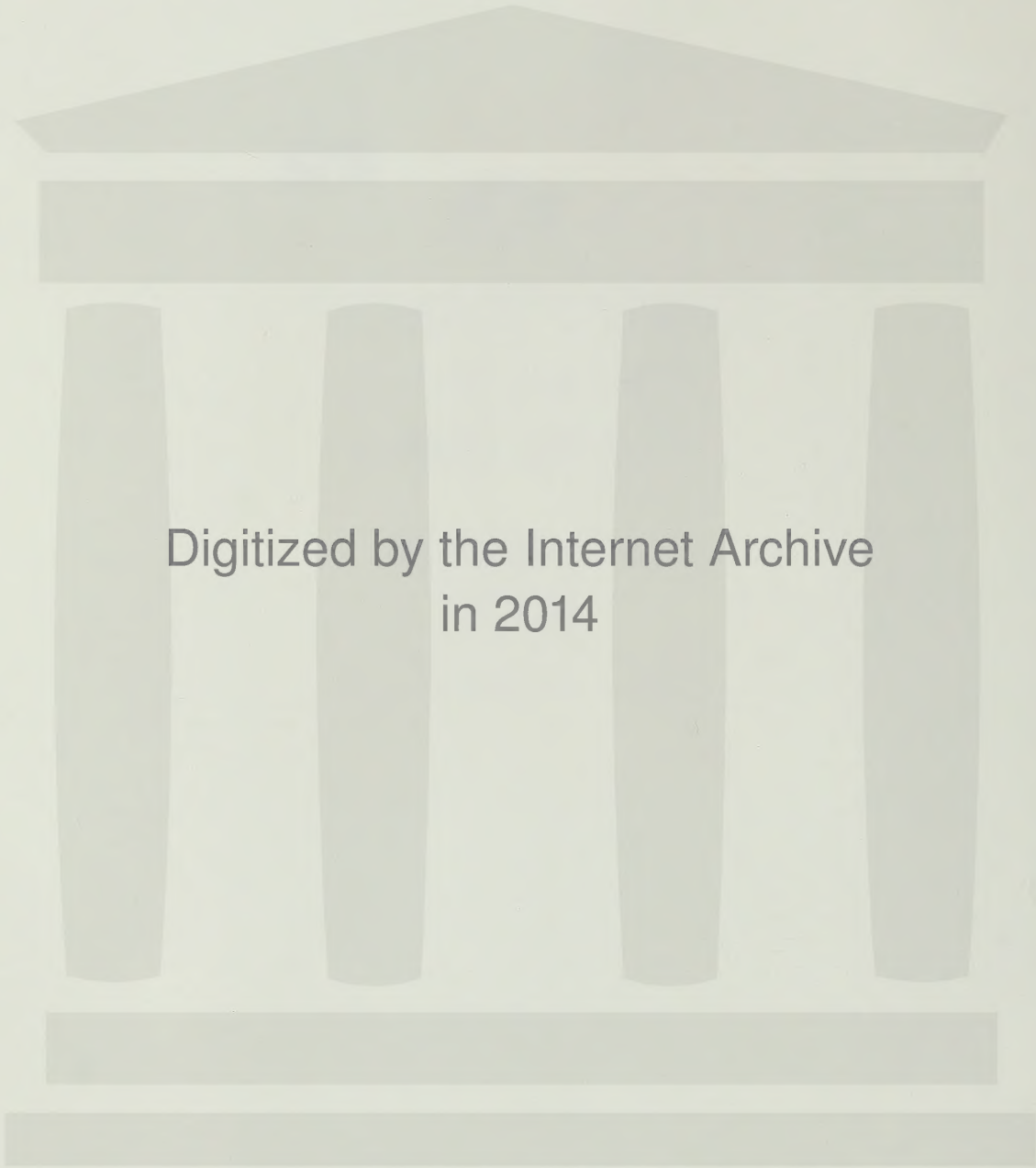
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SAN FRANCISCO KAISER MEDICAL CENTER GEARY CAMPUS DEVELOPMENT PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

volume I

95.102E

Draft EIR Publication Date: December 13, 1996

Draft EIR Public Hearing Date: January 23, 1997

Draft EIR Public Comment Period: December 13, 1996 to January 27, 1997

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TO: Distribution List for the San Francisco Kaiser Medical Center Geary Campus Development Project Draft EIR

FROM: Environmental Review Officer

SUBJECT: Request for the Final Environmental Impact Report for the San Francisco Kaiser Medical Center Geary Campus Development Project (Case No. 95.102E)

This is the Draft of the Environmental Impact Report for the San Francisco Kaiser Medical Center Geary Campus Development Project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" which will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the draft will automatically receive a copy of the Comments and Responses document along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting and certified as a Final EIR, if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final Environmental Impact Report. *The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution.* It will simply provide the information in one rather than two documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them.

If you want a copy of the Final EIR, please so indicate in the space provided on the next page and mail the request to the Office of Environmental Review within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.

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Notice Date: December 13, 1996

4) **Public comments will be accepted from December 13, 1996, to the close of business on January 27, 1997 (45 days).**

If you would like a copy of the Draft Environmental Impact Report, please contact the planner listed below, or visit the Department's Zoning Information Counter, located on the First Floor of 1660 Mission Street. The Zoning Information Counter is open on weekdays between the hours of 9 a.m. and 5 p.m.

Planner: John Billovits (415) 558-6390

This notice is routinely sent to community organizations and to those persons who own property abutting the site of the project, as well as to persons who have specifically requested notice. Organizations and property owners are encouraged to pass on this information to any other persons who may be interested.

Environmental Review Officer

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

TO: Department of City Planning,
Office of Environmental Review

Please send me a copy of the Final EIR.

Signed: _____

Print your name and address below:

San Francisco Redevelopment Agency
City and County of San Francisco
Department of City Planning

SAN FRANCISCO KAISER MEDICAL CENTER GEARY CAMPUS DEVELOPMENT PROJECT
Draft
Environmental Impact Report
95.102E

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SAN FRANCISCO KAISER MEDICAL CENTER
GEARY CAMPUS DEVELOPMENT PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

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SAN FRANCISCO KAISER MEDICAL CENTER
GEARY CAMPUS DEVELOPMENT PROJECT
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I. SUMMARY

A. PROJECT DESCRIPTION

INTRODUCTION

Kaiser Foundation Hospitals (Kaiser), a California non-profit public benefit corporation health maintenance organization, proposes to consolidate and centralize its health services delivery facilities at its Geary Campus in San Francisco under its San Francisco Kaiser Medical Center Geary Campus Development Project (hereinafter referred to as the Kaiser Geary Campus Project).

The project sponsor is Kaiser Foundation Hospitals (Kaiser). The co-applicants are Kaiser and The Eden Group (Eden). Kaiser has entered into conditional agreements to purchase Lots 5A, 5, 6, 7, 8, 9, 9A, 10, 11 and 12 in Assessor's Block 1079 (hereinafter collectively referred to as the "Eden Property"), pursuant to which Eden has submitted a building permit application for the construction of an outpatient services building on the Eden Property, designed to meet Kaiser's service needs. The Eden Property consists of lots commonly known as 11-19 Garden Street, 25 Garden Street and 2232 to 2296 Geary Boulevard. The Eden Property is located in the Geary Boulevard/Divisadero Street Special Use District created by an initiative ordinance adopted by the voters of San Francisco in November 1992. This overlay district changes the height, bulk and allowable floor area ratio (FAR) applicable to the Eden Property in connection with the development of a building to be used for outpatient services by a health maintenance organization. This initiative ordinance is codified as Section 249.13 of the City Planning Code. The co-applicant now seeks approval of a proposed project to implement the intent and purposes of this initiative ordinance. The building proposed for the Eden Property is referred to in this document as the Phase 1A/2290 Geary Boulevard building. Phase 1A/2290 Geary Boulevard would be the first phase of an integrated multiphase expansion and redevelopment of the existing Geary Campus.

The Geary Campus is in the Western Addition area of San Francisco, about one and one-half miles west of Civic Center (see Figure I.A.1). Primary access is provided by Geary Boulevard, and Divisadero Street. The campus is served by Geary Boulevard, Divisadero, O'Farrell and Broderick Streets, and St. Joseph's Avenue. The Geary Campus occupies all or part of five blocks bounded by Lyon Street on the west, Garden Street on the north, Divisadero Street on the east, and Ellis Street on the south.

The existing Geary Campus contains the Kaiser Hospital consisting of approximately 336,000 gross square feet (sq. ft.) of inpatient space 231,000 sq. ft. of outpatient, administrative and ancillary supportive space, and approximately 388,000 sq. ft. of parking garages.

Kaiser leases a total of approximately 95,000 sq. ft. for 32 physicians and support services on or within two blocks of the Geary Campus or at other locations in San Francisco.

Kaiser also operates the French Campus which occupies the block bounded by Geary Boulevard, Fifth Avenue, Anza Street and Sixth Avenue, Assessor's Block 1539. The French Campus would be used for temporary relocation of existing outpatient services until planned developments are completed at the Geary Campus. At the time traffic counts were made on August 20, 1995, French Campus consisted of approximately 263,000 sq. ft., of which about 97,500 sq. ft. was vacant and approximately 165,500 sq. ft. of outpatient, administrative and support space was used (including 13,000 sq. ft. of non Kaiser uses).

PROJECT COMPONENTS

The Geary Campus project would include the demolition, construction and redevelopment of the outpatient facilities at the campus (not including the hospital, 2130 O'Farrell Street Garage and 2350 Geary Street), and demolition of all existing buildings and the construction of a new building on the Eden Property. The proposed project would be implemented in two phases. The project sponsor would construct three buildings in Phase1 and two buildings in Phase 2

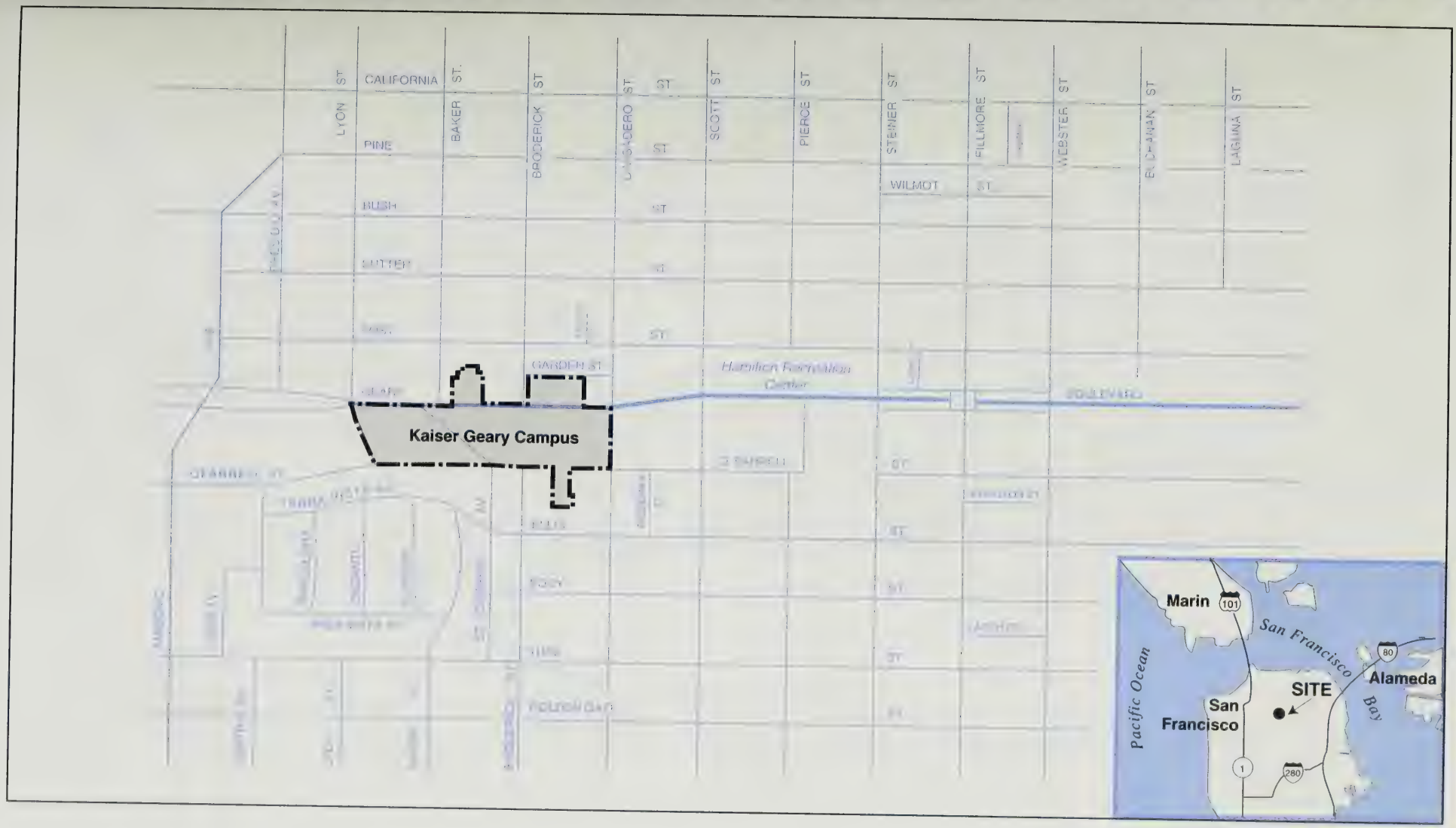

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Figure I.A.1
Project Location

(see Figure I.A.2). For purposes of analysis in the EIR, it is assumed that Phase 1 would be complete by the year 2000 and that Phase 2 would be complete by the year 2010.

Phase 1

Phase 1 would include three components: Phase 1A would be the demolition of the existing buildings on the Eden Property and construction of a 260,000-sq.-ft. outpatient services building with 532 parking spaces on the site. Phase 1B would be the demolition of the existing 2139 O'Farrell Street building and the construction of a 21-unit apartment building with 21 parking spaces on the site. Upon completion of the new apartment building, the existing 21-unit apartment building at 1401-17 Divisadero Street would be demolished. Phase 1C would be the demolition of the existing 2200 O'Farrell Street building (and related facilities) and the adjacent 2190 O'Farrell parking garage, and construction of a 350,000-sq.-ft. outpatient services building with 700 parking spaces on the site.

By year 2000, Phase 1 would construct 610,000 sq. ft. of Kaiser outpatient services and adminstrative space and 22,700 sq. ft. of residential space, vacate 75,000 sq. ft. of leased space, and about 187,000 sq. ft. (exclusive of parking) at the Geary Campus would be demolished. Therefore, the net increase in space with Phase1 at the Geary Campus would be about 445,000 sq. ft. The number of off-street parking spaces on the Geary Campus would increase from 1154 to 1,251 spaces. Outpatient services that were displaced during demolition and construction would be housed temporarily at the French Campus. After completion of Phase 1, the Geary Campus would have the capacity for about 400 physicians, for a total of about 2,000 employees, similar to levels in 1995.

Upon completion of Phase 1C of the proposed project, Kaiser intends to vacate all leased space, except at 601 Van Ness Avenue and at 425 Market Street.

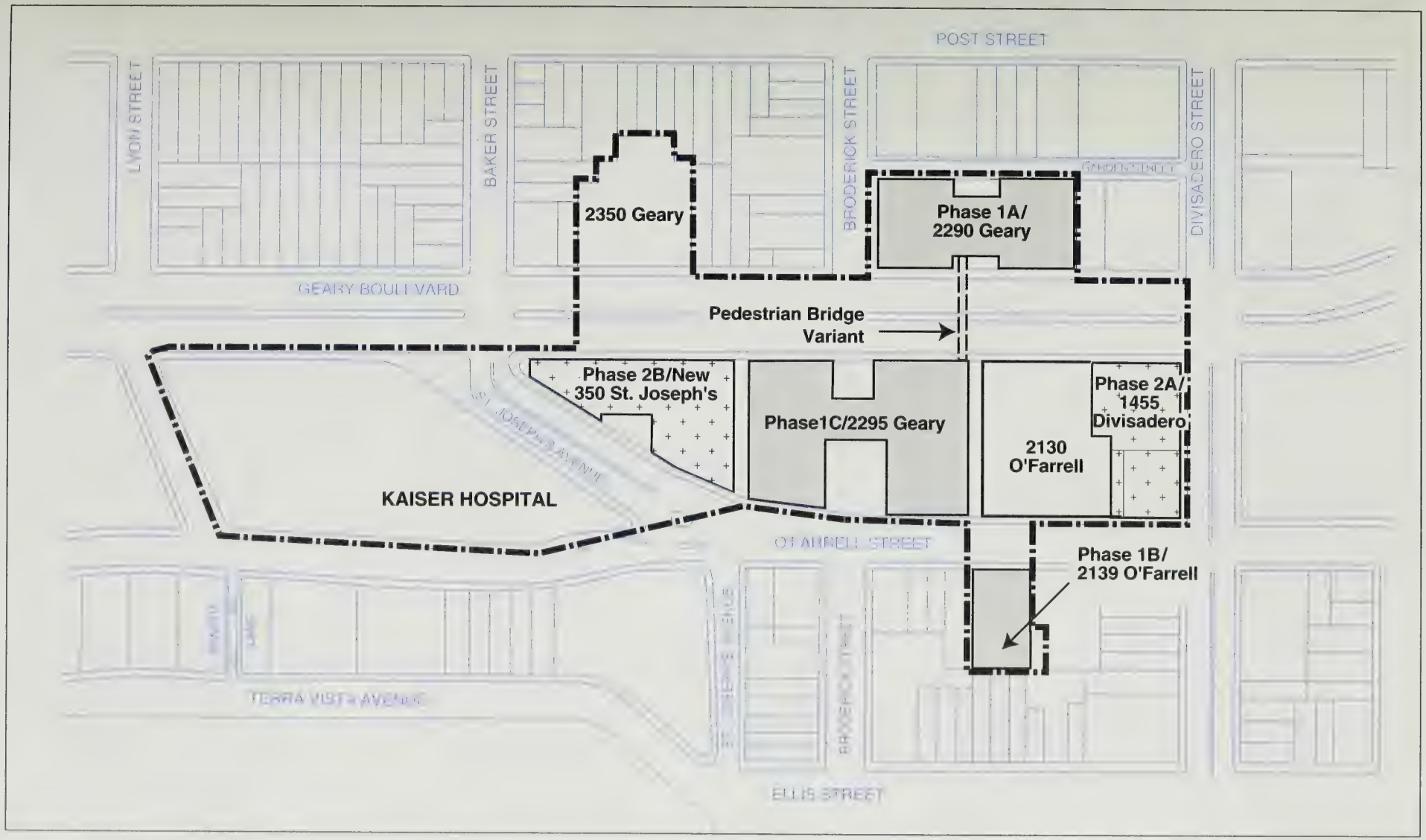

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Figure I.A.2
Kaiser Geary Campus: Phasing Plan

Kaiser would vacate the French Campus, and 2350 Geary Boulevard on the Geary Campus, after completion of Phase 1 of the proposed project. Kaiser would evaluate any future use of the French Campus at that time, and retain it for future use or sell it as surplus property.

Phase 2

Phase 2 would include two components: Phase 2A would be construction of a 127,000-sq.-ft. outpatient services building with 200 parking spaces at 1455 Divisadero Street (a site currently comprising the 1401-17 Divisadero Street apartment building and the vacant lot at the southwest corner of Divisadero Street and Geary Boulevard). Phase 2B would be demolition of the existing building at 350 St. Joseph's Avenue and construction of a 97,000-sq.-ft. ancillary and administrative services building with 270 parking spaces. At the completion of Phase 2, the Geary Campus would be increased by an additional 192,660 sq. ft. of outpatient service space. At the Geary Campus, Phase 1 and Phase 2 would add net new 636,860 sq. ft. and 1,546 parking spaces.

The Geary Campus is under both the jurisdiction of the San Francisco Redevelopment Agency and the City Planning Commission/Department. Development of the Phase 1A and Phase 2B sites would be under the exclusive jurisdiction of the City Planning Department. Development of Phase 1B, Phase 1C and Phase 2A sites would be under the jurisdiction of the San Francisco Redevelopment Agency ("SFRA") pursuant to the Western Addition Area A-1 and A-2 Plans.

B. MAIN ENVIRONMENTAL EFFECTS

LAND USE AND ZONING

Land Use

Phase 1A/2290 Geary of the Kaiser Geary Campus project would change land uses on the Eden Property from mixed-use to medical outpatient services consistent with City Planning Code Section 249.13, which established the Geary Boulevard/Divisadero Street Special Use District. Development of Phase 1A/2290 Geary Boulevard would represent a change in the intensity and scale of development. Implementation of Phase 1B/2139 O'Farrell Street would change the land use on the Phase 1B site from medical-related use to multi-family residential use, similar to existing uses on the rest of the block. Phase 2A/1455 Divisadero Street would change the existing multi-family residential use to outpatient services similar to the outpatient services and related parking uses that occupy the rest of the block. Phase 1C/2295 Geary Boulevard and Phase 2B/New 350 St. Joseph's Avenue would not alter existing uses, but would intensify the use.

Implementation of the entire project as proposed would intensify, reconfigure and consolidate medical uses on the Kaiser Geary Campus. The proposed project would not introduce new or incompatible land uses to the area. The expansion and intensification of the existing medical uses would continue the trend toward development and intensification of medical uses in the immediate vicinity of the Kaiser Geary Campus.

Zoning

The Geary Campus is under the jurisdiction of the San Francisco Redevelopment Agency (SFRA) and the City and County of San Francisco (the City). SFRA imposes land use controls through implementation of adopted redevelopment project area plans which may differ from controls imposed by the City through implementation of the City Planning Code. Unless specifically reserved by the San Francisco Board of Supervisors at the time of approval, SFRA

controls preempt local zoning authority. The City retains jurisdiction over the 350 St. Joseph's Avenue site (Phase 2B of the project), and the Eden Property (Phase 1A). It also has jurisdiction over the 2350 Geary Boulevard site and the inpatient hospital facility, which are portions of the Geary Campus that would not be redeveloped in the proposed project.

For those portions of the Geary Campus under the jurisdiction of the SFRA, the land use designation under the Western Addition A-1 Plan is Community Shopping. Under the Western Addition A-2 Plan, the land use designation is M-4 (medium-density residential), institutional with an alternative designation of medium-density residential. There is no height limit for the Area A-1; the applicable height limit for the Area A-2 site is 40 feet.

Development of a building for outpatient services on the Phase 2A/1455 Divisadero would require an amendment to the Western Addition Redevelopment Plan A-1 from Medium-Density Residential to Community Shopping. All other uses proposed would be consistent with applicable land use designations. All proposed buildings would conform to applicable City Planning Code Height and Bulk limitations or applicable SFRA land use standards.

URBAN DESIGN AND VISUAL QUALITY

The proposed project would result in changes to the scale and design of the Geary Campus. Under each subphase, the new buildings would increase the size, bulk and scale from that of existing development. Phase 1A/2290 Geary Boulevard would replace the low-rise mixed-use character of the Eden Property, which currently exhibits varied height and lot coverage, with a 105-foot (eight-story) structure. Phase 1B/2139 O'Farrell Street would replace a low-rise (three-story) office building and surface parking lot with a low-rise 40-ft.-high (four-story) apartment building. Phase 1C/2295 Geary Boulevard would replace one eight-story and one six-story parking structure with a single 105-ft.-high eight-story office structure. Phase 2A/1455 Divisadero Street would replace a four-story mixed use building and a vacant lot with a single 80-ft.-high five-story office structure. Phase 2B/New 350 St. Joseph's Avenue would replace a two-story office building with a 50-ft.-high three-story office building.

Phase 1A/2290 Geary Boulevard, Phase 1C/2295 Geary Boulevard and Phase 2A/1455 Divisadero Street buildings would be visible from long- and short-range views. The increased mass of these buildings would alter the views along the Geary Boulevard corridor and from the residential buildings in the Anza Vista area. The proposed buildings would be constructed to their respective front property lines and would change the streetscape along Geary Boulevard. The Phase 2A/1455 Divisadero Street building would be visible along the Divisadero Street corridor, as would the upper stories of the Phase 1A/2290 Geary Boulevard building.

The view of the existing Kaiser buildings from the Hamilton Recreation Center playing fields would be replaced with a view of the upper stories of the Phase 1A/2290 Geary Boulevard building and the Phase 1C/2295 Geary Boulevard building, and Phase 2A/1455 Divisadero Street building. No public views of the bay or downtown skyline would be affected by the proposed project. Upon completion of the proposed project, the entire campus would be developed with buildings similar in architectural style, size, bulk, and scale.

ARCHITECTURAL RESOURCES

Phase 1A/2290 Geary Boulevard of the proposed project would demolish the existing buildings on the Eden Property, thereby removing structures associated with early development of the area. Of the buildings proposed for demolition, the building at 2280 Geary Boulevard/41-47 Garden Street was given a summary rating of "0" in the 1976 Department of City Planning architectural survey. The 1976 survey rated 10,000 buildings in San Francisco based on architectural significance, urban design context, and overall environmental significance on a scale of "0" to "5," with a rating of "5" being the highest. The rating of "0" indicated a building is considered to be "contributory" or "neutral," such a building would not by itself be considered architecturally significant. The building at 2280 Geary Boulevard has been altered substantially since the survey was conducted. None of the other buildings on the Eden Property were included in the 1976 Department of City Planning survey. None of the buildings to be demolished are listed on the National Register of Historic Places, designated as City, state, or national landmarks, or part of any historic districts.

Along with the 2280 Geary Boulevard/41-47 Garden Street building, the buildings at 2250 and 2256 Geary Boulevard, also on the Eden Property, may be among the oldest buildings in the Geary Campus vicinity, perhaps originally constructed in the late 1800's. The buildings at 2250 and 2256 Geary Boulevard have been investigated and are reportedly in poor condition and in need of major structural improvements. Neither of these buildings is included in any surveys of architectural or historic significance, or designated as a City landmark.

Within a two-block radius of the Geary Campus, 18 other buildings were included in the 1976 DCP survey. None of these buildings face or are directly adjacent to the campus; none would be affected by the proposed project.

CULTURAL RESOURCES

Archival research revealed no documentation of prehistoric or protohistoric cultural resources at the Geary Campus, although the possibility exists that such artifacts may be deeply buried in the vicinity. Because there was no development in the area during the Spanish/Mexican, Early American or Gold Rush periods, there is relatively little chance of encountering potentially significant remains from these periods. Development of the area began in the Late 19th Century when the western edge of the incorporated City of San Francisco reached Divisadero Street. In the 1860s, Calvary Cemetery was situated on the slope on Lone Mountain in the area which is near the present intersection of Geary Boulevard and St. Joseph's Avenue. Calvary Cemetery was removed in the 1930s.

Because of the proposed depth of excavation, there appears to be a substantial possibility of encountering buried artifacts of potential significance associated with the Late 19th Century occupation of the campus area. The remains of buildings, trash pits, wells and privy vaults could be buried beneath any of the sites proposed for demolition and construction. Human remains and mortuary artifacts associated with the Calvary Cemetery could exist near the intersection of St. Joseph's Avenue and Geary Boulevard. Similar artifacts were discovered in the area during excavation in the 1950s and 1980s. The project sponsor has included, as part of the proposed

project, a program of archaeological testing and evaluation to determine the presence or absence of buried cultural resources at the proposed development sites. If such resources were discovered, earthmoving work would cease temporarily while the resources were evaluated.

SHADOWS

The proposed project buildings would cast new shadows on streets, sidewalks and buildings in the area of the Geary Campus. The new shadows would be at their greatest generally during the fall, winter and early spring throughout most of the day. The mechanical penthouse on the roof of the Phase 1A/2290 Geary Boulevard building, along with the top floor of the Phase 1C/2295 Geary Boulevard building, would cast about 320 square feet and 2,500 square feet respectively, of new shadow, near the entrance to the Western Addition Public Library and parking lot at Hamilton Recreation Center, along Scott Street, between Geary Boulevard and Post Street. Because Hamilton Recreation Center is under the jurisdiction of the Recreation and Park Commission, the provisions of Section 295 of the City Planning Code would be triggered. This section prohibits the approval of a building permit for any new structure over 40 feet in height that would cast shadows, during certain daylight hours, on properties under the jurisdiction of the Recreation and Park Commission unless it is determined that the impact of such shadow is insignificant; no shadow criteria have been established for this park. New shading from the Phase 1A/2290 Geary Boulevard building (about 790 to 1,970 square feet of shadow) and Phase 1C/2295 Geary Boulevard building (about 410 to 2,300 square feet of shadow) would reach its greatest extent during the late fall and winter months. At their maximum, the new shadows would reach the west wall of the public library, the sidewalk on the east side of Scott Street and the entrance to the library's parking lot adjacent to Scott Street, between Geary Boulevard and Post Street. No new shadows would be cast by the project on any portion of Hamilton Recreation Center playing fields. No other project shadow would affect public open space in the vicinity of the Geary Campus. The City Planning Commission may determine the minor amount of new shadow is insignificant within the intent of Section 295.

WIND

Average wind speeds are greatest in the summer and least in the fall, varying from lightest in the early morning to strongest in the afternoon, most frequently blowing from the west and northwest. Large buildings can redirect winds, thereby affecting pedestrian comfort, depending on such factor as sun exposure, temperature and clothing. In the Downtown C-3 District and Rincon Hill Area, the City has established 11 miles per hour wind speed as acceptable for pedestrian areas and 26 miles per hour wind speed as hazardous. Although these criteria do not apply to the Geary Campus, they are useful as guidelines to assess the project's impact on existing wind pattern.

With the addition of the Phase 1 buildings to the campus, the number of locations experiencing wind speeds in excess of the 11 mph comfort criterion would increase from 11 to 17 out of 58 measured locations. Wind speeds up to 14 mph would be expected on the east-west streets. No locations would be expected to exceed the 26 mph hazard criterion. With the completion of the Phase 2 buildings, the number of locations experiencing wind speeds in excess of the 11 mph comfort criterion would decrease from 17 to 14 out of 58 measured locations. Wind speeds would be about the same as for Phase 1 conditions. The project sponsor would consider incorporating design features in the layout of pedestrian spaces to reduce the effects of westerly winds.

POPULATION, EMPLOYMENT, AND HOUSING

As the result of implementing Phase 1 of the proposed project, City-wide Kaiser employment would increase 4.3 percent, or 83 employees, from about 1,920 employees in 1995 to about 2,000 employees in 2010. The 1,920 employees in 1995 and 2,000 employees in 2010 include about 600 employees in the Hospital. Employment at the Hospital is expected to remain constant through year 2010. All discussion related to employment growth for each of the subphases for the project and alternatives is limited to outpatient services. Kaiser would consolidate outpatient service employment presently in off-site leases and at the French Campus

to the Geary Campus. The outpatient service employment capacity of the Geary Campus would increase by 58 percent, or approximately 500 employees, from about 860 employees in 1995 to about 1,360 employees in 2000.

Phase 1A demolition would displace 58 employees working at establishments other than Kaiser. It also would displace 39 Kaiser employees. Phase 1A construction would add 530 Kaiser employees. Phase 1B would displace seven employees in the 1401-17 Divisadero Street building working at establishments other than Kaiser. It also would displace 29 Kaiser employees working at 2139 O'Farrell Street. Phase 1C construction would accommodate 825 Kaiser employees. Demolition of 2190 O'Farrell Street would displace three Kaiser employees. Demolition of 2200 O'Farrell Street would displace 562 employees. 350 St. Joseph's Avenue Building would be vacated of its 116 employees, as would the French Campus of its 260 employees, and existing off-campus leases of their 156 employees. These 1,165 displaced Kaiser employees would be accommodated in the new construction of Phase 1 with its total capacity to accommodate 1,355 employees.

Existing commercial and residential structures on the Eden Property (Phase 1A) and at 1401-17 Divisadero Street would be demolished, and existing uses would be displaced. Eight currently occupied residential units would be demolished at the Eden Property. Twenty-one residential units would be demolished at 1401-17 Divisadero Street. Section 249.13 of the City Planning Code allows the Planning Commission to require the payment of up to $100,000 to mitigate for the loss of housing units on the Eden Property if the Commission found that the benefits of the proposed project did not outweigh the detriment of demolition of housing units at the Eden Property site. Kaiser would meet the residential replacement requirements of State Redevelopment Law for the demolition of the 21-unit apartment building with construction of another 21-unit apartment building at Phase 2B/2139 O'Farrell Street. Phase 1 of the proposed project is not subject to the housing demand mitigation requirements of the City's OAHPP (Office of Affordable Housing Production Program) ordinance (City Planning Code Section 313) that applies to certain office construction.

In Phase 2 of the proposed project, City-wide Kaiser employment would increase 15 percent, or about 300 employees, between years 2000 and 2010. The employment capacity of the Geary Campus would increase by 22 percent, or approximately 300 employees, from about 1,360 employees in 2000 to 1,650 employees in 2010. Phase 2 of the proposed project would not displace any businesses or residents. Phase 2B/New 350 St. Joseph's Avenue would add about 65,660 sq. ft. of administrative office space.

TRANSPORTATION AND CIRCULATION

Vehicular Traffic Generation

Phase 1 of the Project would generate a net addition of approximately 5,920 average daily person-trips over existing conditions, or 570 p.m. peak-hour person-trips, which translate into approximately 3,620 average daily vehicle-trips, or 330 p.m. peak-hour vehicle-trips. By the Year 2010 buildout of Phase 2 would generate a net addition of approximately 10,760 average daily person-trips over existing conditions, or 980 p.m. peak-hour person-trips, which translate into approximately 6,200 average daily vehicle-trips, or 550 p.m. peak-hour vehicle-trips.

Under Year 2000 cumulative traffic conditions, including traffic from Phase 1 of the project, the intersections of Geary Boulevard/St. Joseph's Avenue, Geary Boulevard/Broderick Street, Geary Boulevard/Divisadero Street, O'Farrell Street/St. Joseph's Avenue, O'Farrell Street/Divisadero Street, Post Street/Baker Street, and Post Street/Divisadero Street would operate at acceptable Levels of Service (LOS) during the p.m. peak-hour. (LOS D or better is considered acceptable by the City's standards.) Geary Boulevard/Divisadero Street would degrade from LOS B to C. Other intersections would continue to operate at LOS B. In addition, the arterial segments of eastbound and westbound directions of Geary Boulevard, between Collins Street and Divisadero Street, and the northbound and southbound directions of Divisadero Street, between Sutter Street and Turk Street, would operate at acceptable service levels under Year 2000 cumulative p.m. peak-hour conditions. (LOS E or better is considered acceptable by Congestion Management Program (CMP) standards.) Eastbound Geary

Boulevard from Collins to Divisadero Street would degrade from LOS A to B, and northbound Divisadero Street from Turk Street to Sutter Street would drop from LOS D to E. The demolition and reconstruction of the Central Freeway is not expected to alter intersection or arterial conditions in the vicinity of the Geary Campus.

Under Year 2010 cumulative traffic conditions, including traffic from Phase 1 and Phase 2 of the Project, all intersections would operate at acceptable service levels. The intersection of Geary Boulevard/Divisadero Street would operate at LOS D under Year 2010 cumulative p.m. peak-hour conditions, but all other intersections would operate at LOS C or B. The arterial segments of eastbound and westbound Geary Boulevard, between Collins Street and Divisadero Street, southbound Divisadero Street, between Sutter Street and Turk Street, and northbound Divisadero Street, between Sutter Street and Geary Boulevard, would operate at acceptable service levels under Year 2010 cumulative p.m. peak-hour conditions. The northbound segment of Divisadero Street, between Geary Boulevard/Turk Street, would operate at LOS F conditions. The LOS F conditions on this arterial segment would be the result of Year 2010 background traffic, without traffic from the project.

Parking

Phase 1A of the project would provide 532 parking spaces, a net increase of 525 spaces. At the end of Phase 1, the project would provide a net increase of approximately 830 parking spaces. This represents an oversupply of 200 parking spaces in Phase 1 beyond estimated new parking demand. Phase 1 and Phase 2 of the project would provide a net increase of approximately 1,300 parking spaces, representing an oversupply of 300 parking spaces at buildout of Phase 2. The oversupplies could potentially increase auto usage to the Geary Campus, thus reducing the effectiveness of the project's existing Transportation Demand Management (TDM) program.

There would be no queuing at the Garden Street entrance to the Phase 1A/2290 Geary Boulevard parking garage during the peak hours. Conflicts could occur between Kaiser-related traffic on Garden Street and procession traffic generated by the adjacent Sinai Memorial Chapel,

causing Kaiser-related traffic to be diverted to the entrance on Geary Boulevard. At the Geary Boulevard entrance, there would be an a.m. peak-hour queue of approximately 20 feet under Phase 1 and Phase 2 conditions. At the entrance to the Phase 1C/2295 Geary Boulevard parking garage (or Phase 2B/350 St. Joseph's Avenue garage, because these two buildings would share the same driveway in Phase 2), there would be an AM peak-hour queue of approximately 140 feet (or 40 feet with two ticket dispensers) under Phase 1 and Phase 2 conditions. The Geary Boulevard garage entrances would need to provide appropriate on-site storage lengths to avoid queuing onto Geary Boulevard. The peak-hour queues at the 2130 O'Farrell Street parking garage (or Phase 2A/1455 Divisadero Street garage, because these two buildings would share the same driveway in Phase 2) would be accommodated by the existing on-site storage length.

Loading

The Phase 1A/2290 Geary Boulevard building would provide two loading spaces with access off Garden Street, which is sufficient to meet the estimated demand for 1.2 spaces during an average hour or 1.5 spaces during the peak hour. Although there would be a sufficient number of loading spaces at this building to meet the estimated loading demand, conflicts could occur between Kaiser-related truck traffic on Garden Street and procession traffic generated by the adjacent Sinai Memorial Chapel, which would cause truck delivery traffic to access the loading facility via Broderick Street.

Phase 1 of the project would increase the total number of loading spaces on the Geary Campus to five. The estimated demand would be for 2.8 spaces during an average hour, or 3.5 spaces during the peak hour. Therefore, there would be a sufficient number of loading spaces to meet the estimated demand in Phase 1. However, based on the combined requirements of the City and SFRA, there would not be enough loading spaces. Kaiser would request a variance from the SFRA commission.

At buildout of Phase 2, the project would provide a total of six loading spaces. The estimated loading demand would be for 3.9 spaces during an average hour, or 4.8 during the peak hour.

There would be a sufficient number of loading spaces within the Geary Campus to accommodate the estimated demand at buildout of Phase 2. In addition, the number of loading spaces provided in Phase 1 and at buildout of Phase 2 would be adequate to meet the City Planning Code requirements. However, based on requirements of the City and SFRA, there would not be enough loading spaces. Kaiser would request a variance from the SFRA commission.

Pedestrian Traffic Generation

Phase 1 of the project would generate approximately 250 new pedestrian trips each day at the intersection of Geary Boulevard/St. Joseph's Avenue and approximately 700 new pedestrian trips each day at the intersection of Geary Boulevard/Divisadero Street. Phase 1 and Phase 2 would generate about twice as many new pedestrian trips at the intersection of Geary Boulevard/St. Joseph's Avenue, and about one and a third times as many new pedestrian trips at Geary Boulevard/Divisadero Street. None of these increases would change the existing unimpeded conditions at the crosswalks of these two intersections.

As a variant to the proposed project, a pedestrian bridge could be constructed to connect Kaiser's buildings on the north and south side of Geary Boulevard. The bridge would improve Kaiser's internal coordination between the north and south side of the campus, and reduce the number of pedestrians crossing Geary Boulevard, improving safety, particularly for elderly, frail, or mobility-impaired persons and children.

Transit

Phase 1 would generate approximately 90 net new transit trips during the PM peak hour, and Phase 1 and Phase 2 would generate approximately 160 net new transit trips. The additional transit trips would be distributed among nine existing MUNI lines and one existing Golden Gate Transit line that serve the Geary Campus. Because these lines have sufficient capacities at the

site, and most of the PM peak-hour transit riders would be traveling in the reverse-peak direction, the additional transit trips could be accommodated within the available capacity.

Demolition and Construction

During demolition and excavation of each subphase, about 30 to 40 truck trips would be generated each day. Construction truck trips are expected to be between 16 and 30 per day depending on the size of each subphase. The maximum number of daily trips (about 570 for Phase 1A and 910 for Phase 1C) would occur during two single-day concrete pouring activities for foundations.

During construction of each subphase of Phase 1, temporary pedestrian walkways would be constructed and parking lanes would be closed along the Geary Boulevard, Broderick Street, Divisadero Street, and O'Farrell Street project frontages, thus resulting in a temporary loss of approximately 50 on-street parking spaces. In addition, one traffic lane along Garden Street, Broderick Street, Geary Boulevard, and one traffic lane along O'Farrell Street, St. Joseph's Avenue, and Geary Boulevard would be closed temporarily on two Saturdays during concrete pouring activities for the Phase 1 buildings. During construction of Phase 2, temporary walkways would be constructed and parking lanes would be closed along the Geary Boulevard, Divisadero Street, and St. Joseph's Avenue project frontages. This would result in a loss of approximately 25 on-street parking spaces. One traffic lane along Geary Boulevard, O'Farrell Street, and St. Joseph's Avenue would be closed temporarily on two Saturdays during the concrete pouring activities for the Phase 2 buildings. Some MUNI bus stops may be relocated temporarily to the opposite street corners during the construction period. Most of the construction worker parking would be provided in the Kaiser-operated parking garages on the Geary Campus.

NOISE

Implementation of the proposed project would cause sequential demolition and construction activity on the Geary Campus for at least ten years. Noise would be produced by heavy trucks

removing debris or delivering building materials, earthmoving equipment (pumps, compressors), impact tools (jack hammers, pneumatic drills) and other power tools (saws, compactors). With feasible noise control, the noise levels would be about 5 dBA above local ambient level. Noise impacts would be most intense during excavation and foundation preparation phases, the latter requiring 300 to 900 concrete trucks for one day (i.e., Saturday, starting at 6:00 a.m.) at each of the outpatient services building site. Bumps or potholes along truck routes could cause disruptive truck pass-by vibrations in adjacent residential areas. Excavation and pile driving would cause noise and vibration that also could be disruptive to nearby residents and adjacent properties. Potential project-related vibration damage would be monitored during the excavation and construction period and corrected by the project sponsor.

During the operational phase, the duration and intensity of noise exposure would be reduced through the implementation of San Francisco Noise Ordinance provisions. Deliveries and pickups at the new loading docks, traffic entering and exiting the new parking garages, and ventilation equipment installed at the new buildings would generate noise. Temporary access and traffic flow restrictions, and appropriate acoustic shielding for equipment located outside the new buildings would assure that residential exterior noise exposure would be within acceptable limits (55 dBA during the day and 50 dBA at night).

The only measurable increase in annoyance to nearby residents resulting from noise (at the intersection of Divisadero Street and Geary Boulevard) produced by the proposed project, and cumulative traffic in the Geary Campus vicinity, would occur at 1450 Divisadero, a building which appears to lack noise attenuation features, in the year 2010.

AIR QUALITY

Small-diameter particulates (PM_{10}) would be emitted during construction; such emissions would be most intense during demolition and excavation phases. The PM_{10} emissions would be reduced to an acceptable level through the implementation of BAAQMD-recommended

mitigation measures because of the need to protect residential areas adjacent to the construction sites on the Geary Campus.

Reactive organic gases (ROG), nitrogen oxides (NO_x) and PM_{10} would be emitted by new stationary sources, such as heating and cooling equipment, and by additional motor vehicles traveling to and from the proposed new facilities. By the year 2010, ROG emissions are expected to decline by 36 percent, but NO_x, and PM_{10} emissions are expected to increase by 16 percent and 83 percent, respectively. The increase in NO_x emissions from the proposed project of 87 lbs./day in the year 2010 would exceed the 80 lbs./day BAAQMD threshold. Emissions from new stationary sources would be the primary cause of this exceedance. Compliance with BAAQMD permit standards to reduce NO_x emissions is required. Selection of equipment and operating schedules would be necessary to meet permit standards.

No existing or future CO standard violations are anticipated in the vicinity of the Geary Campus. The proposed project's largest contribution to CO concentrations would be 0.6 ppm at the 1450 Divisadero receptor in the year 2000.

HAZARDOUS MATERIALS

Consolidation of Kaiser operations, projected increase in patient visits and expansion and relocation of operations that use hazardous materials at the Geary Campus, would result in an increase in hazardous materials use and in hazardous waste generated. Kaiser would move its operations from the French Campus and various leased spaces to the Phase 1 buildings. Kaiser forecasts an approximate increase of 10 percent in patient visits to each patient services department at all current locations by the year 2000, and 27 percent increase by the year 2010.

The increase in use of hazardous materials would involve increase of hazardous chemicals (non-radioactive) and biohazardous materials. With the proposed project there would be an increase in storage and transportation of hazardous materials among Kaiser facilities at the Geary Campus. There may be an increase in the potential for exposure caused by the increase in use,

storage and transportation of hazardous materials. Kaiser would continue to implement and improve the current procedures for proper handling, storage and transportation of hazardous materials, and emergency response services to ensure compliance with applicable laws and regulations to minimize potential exposure to hazardous materials.

The increase in use of hazardous materials would result in increased generation of hazardous wastes. With the proposed project there would be an increase in the handling and transportation of hazardous chemical waste and medical waste. This may result in increased potential for exposure. Proper handling of the hazardous waste, continuation of current health and safety procedures following applicable rules and regulations, and continued upgrading of health and safety plans would reduce possible health hazards caused by potential exposure.

At the end of Phase 1, the hazardous materials use and generation of hazardous waste at the French Campus and at 1635 Divisadero Street by Kaiser outpatient services would be eliminated. Use of hazardous materials and generation of hazardous waste would be eliminated at 350 St. Joseph's Avenue in Phase 2. This would eliminate any potential exposure caused by use, transportation, and possible accidental release of hazardous materials to the community in those areas. Construction of a new outpatient services building at 1455 Divisadero during Phase 2A would increase the use of hazardous materials and generation of hazardous waste in that area; there is no current use of hazardous materials at 1401-17 Divisadero Street, which is a commercial and residential building.

UTILITIES AND COMMUNITY SERVICES

Fire and police protection for the proposed project at the Geary Campus would be adequate, and no additional fire or police resources (such as additional personnel or new stations) would be needed. The capacity of Altamont Landfill is adequate to accommodate the additional amount of solid waste that would be generated by the proposed project. The need for increased water by the proposed project would be met adequately by current water supply and the proposed project could be served by the existing water supply infrastructure. Wastewater treatment plants have

adequate capacity to treat increased wastewater discharged from the proposed project. Utility lines in the Broderick Utility Corridor would be protected during excavation activities for Phase 1C/2295 Geary Boulevard, so no disruption of service is expected to occur.

ENERGY

Operation of the proposed Phase 1 project buildings would use about 63 billion British thermal units (BBtu) per year, including 13.6 million kilowatt-hours (kWh) of electricity and 11.3 million cubic feet (cf) of natural gas. Upon completion of Phase 2, operation of the proposed project buildings would use approximately 82 BBtu per year of energy in the form of electricity and natural gas. Annual electrical use would be about 17.8 million kWh, and annual natural gas use would total about 19.2 million cf. Increased energy use through increased vehicle trips would be offset somewhat by reduced energy use resulting from decreased trip lengths between departments as Kaiser facilities are consolidated at the Geary Campus. Energy for construction of the project would be consumed through the materials used in construction, construction equipment, and construction worker vehicles, and would total about 520 BBtu.

VEGETATION AND WILDLIFE

Street trees of eucalyptus, sycamore and bottlebrush occur throughout the campus south of Geary Boulevard; none are on the Eden property (Phase 1A site). No sensitive plant or animal species or habitat have been observed or documented on the campus. Street trees would need to be removed during demolition and construction activity. The project sponsor would develop a landscaping plan that would include replacement of all removed or damaged trees, in accordance with the Urban Forestry Ordinance, and provide new street trees at each of the Phase 1 and Phase 2 sites.

SOILS, GEOLOGY, AND SEISMICITY

The Geary Campus is a gently sloping, inland location, underlain by about 200 feet of wind-blown and alluvial sand, silt and clay, which overlie Franciscan sandstone bedrock. The groundwater table is between 30 and 80 feet below the ground surface.

The Geary Campus is not in an Alquist-Priolo Earthquake Fault Zone or in any of San Francisco's Special Geologic Study Areas for potential ground failure hazards or potential inundation hazards. The vicinity of the campus is susceptible to earthquake-related groundshaking that could be strong enough to damage buildings and infrastructure, and possibly result in loss of life. Buildings on the campus proposed for demolition are rated as functional concerns or life-safety concerns under Kaiser's standards for seismic safety and do not meet current San Francisco Building Code standards. The San Francisco Building Code would require seismically resistant construction design and excavation activities on the Geary Campus.

A total of about 305,000 cubic yards of material would be removed from the campus during the development of the proposed project: about 70,000 cubic yards during Phase 1A; about 145,000 cubic yards during Phase 1C; about 40,000 cubic yards during Phase 2A; and about 50,000 cubic yards during Phase 2B. A negligible amount of grading would occur during Phase 1B. Excavations as deep as 65 feet would be shored to prevent slumping of the walls and settlement of adjacent structures. Structures adjacent to the excavations that could settle during dewatering would be protected by shoring, underpinning, or similar techniques. Specific seismic safety measures to protect outpatient service areas would be included in building designs. Emergency response plans, integrated with San Francisco's plans, would be implemented on the campus.

HYDROLOGY AND WATER QUALITY

During construction, all the proposed buildings, except for Phase 1B/2139 O'Farrell Street and Phase 2B/350 St. Joseph's Avenue, would need dewatering of groundwater, which could result in settlement of soil around the building sites. Settlement effects would be monitored and the

dewatering program revised as needed to correct for unacceptable amounts of settlement. Potentially contaminated dewatering discharge would be tested and pre-treated prior to disposal in the City's combined wastewater collection system. Erosion of construction sites and sedimentation of the City's sewers during construction of the proposed project could result during excavation. Erosion and sedimentation would be controlled through the use of Best Management Practices (BMPs) by Kaiser's contractors. Emergency response plans for spill controls and cleanup would be included for Phases 1A, 1C, 2A and 2B of the proposed project. Groundwater flow and surface runoff and infiltration would change little under post-construction conditions. The City would amend the wastewater permit for the Geary Campus to reflect changes in the discharge volume, but may not require water quality standards different from those currently in effect.

CONTAMINATED SOILS AND HAZARDOUS WASTE

Construction and demolition activities as part of the Geary Campus expansion may cause exposure to hazardous materials such as contaminated soils or buildings containing asbestos, lead or polychlorinated biphenyls (PCBs). There is a potential for encountering underground storage tanks (USTs) during excavation activities at various locations on the Geary Campus and Eden Property. Because the contents of the USTs may be hazardous, materials stored in an UST that is unexpectedly disturbed during excavation has the potential to cause exposure. If an UST were discovered during construction activities, it would have to be closed in place or removed. Such activities also have the potential to cause exposure for workers, tank handling personnel and members of the public, if the tank contents vaporize. Exposure potential posed by USTs would be minimized by following applicable laws and regulations under the guidance of responsible regulatory agencies.

Various buildings and structures to be demolished on the Geary Campus and Eden Property are contaminated with asbestos, lead and and possibly with PCBs. Exposure to these contaminants could cause adverse health impacts. These contaminants would be removed prior to demolition of the buildings in accordance with applicable regulations. There would be a potential for

exposure during removal of asbestos, lead and PCBs from the contaminated buildings and structures. Potential for exposure could be minimized by following safety procedures as required by applicable laws.

GROWTH INDUCEMENT

In Phase 1 of the proposed project, Kaiser-owned outpatient service space physically located on the Geary Campus would experience a net increase of about 474,000 sq. ft. Kaiser would vacate about 230,000 sq. ft. of owned and leased space and relocate those functions to the newly constructed Phase 1 buildings on the Geary Campus.

Phase 1 would demolish a total of about 187,000 sq. ft. of space. Of this total, about 51,000 sq. ft. would be of residential, commercial, and office space used by other than Kaiser enterprises and persons. Of this subtotal of demolished non-Kaiser space, about 34,000 sq. ft. would be demolished in Phase 1A and 17,500 sq. ft. would be demolished in Phase 1B. The proposed project would not demolish any structures in Phase 1C. Kaiser would build a 21-unit replacement building. The net change in direct population impacts would be minimal because most of the new units would be comparable in size. The proposed project's demolition and construction activity would create 150 on-site construction jobs per year and indirectly would stimulate or maintain another 50 construction-related jobs per year in goods production and services provision. The combined consumption income would *induce* the maintenance of another 180 jobs per year. The proposed project would add approximately 80 Kaiser employees by the year 2000. The net increase of 80 new Kaiser jobs would be expected to create a maximum of 14 *indirect* jobs in San Francisco related to health services delivery demand for goods and services and about another 85 *induced* jobs in San Francisco.

Phase 1 of the proposed project would not remove obstacles to population growth, such as community service facilities of wastewater treatment capacity, or water transmission and supply, nor would it encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. In Phase 2, the proposed project would

experience a net increase of about 193,000 sq. ft. of Kaiser-owned space. No housing would be built or demolished.

The proposed project's demolition and construction activity would create 47 on-site construction jobs annually during Phase 2, and indirectly would stimulate or maintain another 16 construction-related jobs in goods production and services provision. The combined consumption income would *induce* the maintenance of another 100 jobs per year. The proposed project would add approximately 300 new Kaiser employees by 2010. The net increase of 300 new Kaiser jobs would be expected to create a maximum of 50 *indirect* jobs in San Francisco related to health services delivery demand for goods and services and about another 372 *induced* jobs in San Francisco.

Phase 2 of the proposed project would not remove obstacles to population growth nor would it encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively.

C. MITIGATION MEASURES

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

Cultural Resources

Because of the possible presence of prehistoric or protohistoric and Later Nineteenth Century archaeological resources in the study area, and the possibility that human burials or associated mortuary artifacts of the old Calvary Cemetery may exist within the Geary Campus, an archaeological testing and evaluation program would be implemented, in coordination with the Environmental Review Officer (ERO). Prior to excavation and construction the presence or absence of potentially significant cultural resources would be established by an archaeologist in consultation with the ERO, and their significance assessed through appropriate field and laboratory analyses. The archaeologist would perform on-site monitoring of all excavation activities.

Reports describing the findings and proposing appropriate additional procedures would be submitted to the San Francisco City Planning Department's ERO, the project sponsor, the President of the Landmarks Preservation Advisory Board, and the California Archaeological Site Survey Northwest Information Center. If unexpected cultural materials of potential significance are encountered, earthmoving activity in the area of impact would be suspended for as much as four weeks pending the examination and assessment of the materials.

Air Quality

Kaiser would direct the contractor to implement a mitigation program at all construction sites to prevent visible dust plumes from blowing off-site; to cover on-site storage piles and ha l-trucks that travel on public streets; to sweep all paved access routes, parking areas, and staging areas daily; to sweep streets daily if visible amounts of soil material are carried onto public streets; and to suspend demolition and excavation activity when winds exceed 25 mph.

Kaiser would incorporate Best Available Control Technology NO_x emission controls in the physical plants of the proposed facilities.

MITIGATION MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

Noise

Kaiser would direct contractor(s) to limit construction hours to between 7:00 a.m. and 6:00 p.m., to use construction equipment with noise reduction devices, to minimize the use of impact tools, to locate stationary noise sources away from residential areas, to use acoustic shielding with such equipment, and to pre-drill holes for the shoring piles.

Kaiser would consider prohibiting night-time or early morning (i.e, between 10:00 p.m. to 7:00 a.m.) supply deliveries, requesting later garbage pickups at the proposed Phase 1C/2290 Geary Boulevard and Phase 2B/New 350 St. Joseph's Avenue loading docks.

The project sponsor's construction contractor would conduct an inspection for structural damages of the adjacent buildings prior to beginning excavation work for the proposed underground parking garages and after such work was completed. The sponsor would reimburse owners for, or repair, damages resulting from excavation and construction activities.

Soils, Geology and Seismicity

Measures such as shoring or underpinning would be taken to reduce or eliminate potential ground settlement of the surrounding areas caused by dewatering, excavation, or construction. The sponsor would reimburse owners for, or repair, damages resulting from excavation and construction activities.

D. IMPROVEMENT MEASURES

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

Architectural Resources

To document 2250 Geary Boulevard and 2256 Geary Boulevard prior to demolition, the project sponsor would prepare a photographic record of these two structures. Two copies of the photographic documentation volume and the Architectural Resources Background report would be delivered to the San Francisco Department of City of Planning for transmittal to a repository of its choice.

Wind

To reduce potential discomfort from winds, Kaiser would direct the project architect to anticipate westerly winds in the layout of pedestrian spaces adjacent to new buildings.

Transportation and Circulation

Appropriate on-site storage lengths at the entrances to the proposed parking garages would be provided to minimize queuing impacts.

To minimize conflicts between Kaiser-related traffic using Garden Street and traffic associated with the Sinai Memorial Chapel, the project sponsor would restrict the Garden Street access to the Phase 1A/2290 Geary Boulevard parking garage to employees only, prohibit ingress and egress between 10:00 a.m. and 4:00 p.m, and require all trucks arriving to or departing from the loading facility on Garden Street to use Broderick Street only. The sponsor would also require the construction contractor to obtain a procession schedule from Sinai Memorial Chapel, and to coordinate construction activities around scheduled processions.

To minimize conflicts between construction truck traffic and area traffic, truck trips would be scheduled to avoid the evening peak (4:00 p.m. to 6:00 p.m.) commute period, and AM peak (7 a.m. to 9 a.m.) commute period. The contractor would schedule all concrete pouring activities on Saturdays to avoid the weekday peak periods. The contractor would coordinate with nearby parking garage/lot operators to accommodate construction worker parking during Phase 1A. Thereafter, off-street parking would be provided in Kaiser-operated garages.

The project sponsor would meet with the Chief Inspector of MUNI and Golden Gate Transit to identify appropriate locations for all transit stops that would be relocated during the construction period, with approval from the Interdepartmental Staff Committee on Traffic and Transportation.

The project sponsor would maintain the current Transportation Demand Management program and implement the proposed recommendations developed under their Transportation Demand Management Plan Study of September 1995.

Hazardous Materials

Kaiser would continue to prohibit transport of hazardous materials to outside areas designed to prevent accidents during transportation of hazardous materials.

Kaiser would continue to develop and implement Standard Operating Procedures that include measures to prevent undue risk of upset.

Kaiser would decontaminate all equipment associated with hazardous materials before transporting them to other locations.

Solid Waste

To maximize diversion of the project's demolition waste from landfill space, Kaiser would evaluate reuse of existing fixtures in buildings to be demolished.

Kaiser would minimize the amount of solid waste generated by the project by providing clearly marked separate recycling areas and bins in the proposed outpatient and administrative services buildings.

Kaiser would minimize disposal of construction waste by including stipulations in construction contracts that require demolition, excavation, and construction waste to be hauled to a processing facility for segregation of recyclable materials.

Broderick Utility Corridor

Kaiser would protect utility lines in the Broderick Utility Corridor from disruption during construction or relocate them.

Energy

Kaiser would require that idling time for all construction equipment be minimized and encourage an inspection and maintenance schedule of construction equipment to maximize efficiency of operation.

Kaiser would maintain and promote its Transportation Demand Management program.

Soils, Geology and Seismicity

Seismicity

Kaiser would ensure that specific seismic safety requirements of out-patient service areas would be incorporated in the design of each phase of the campus expansion.

An integrated emergency response plan for each building, and for the campus as a whole, would be developed by Kaiser and implemented to reduce seismic-related injuries.

Hydrology and Water Quality

Dewatering

Kaiser would require that appropriate dewatering systems for each phase site would be designed by a California registered civil engineer, with experience in dewatering operations to monitor and reduce the potential effects of ground settlement.

Water Quality

Kaiser would update its emergency response plans for spill control and cleanup to include the proposed buildings.

IMPROVEMENT MEASURES PROPOSED BY THE PROJECT SPONSOR

Transportation and Circulation

As a variant to the project, Kaiser proposes to construct a pedestrian bridge to connect the Phase 1A/2290 Geary Boulevard building with the south side of Geary Boulevard and ultimately with the Phase 1C/2295 Geary Boulevard building. The bridge would reduce the walking distance between the buildings by 600 feet, and would accommodate increases in Kaiser-related pedestrians traveling between the north and south sides of Geary Boulevard. It would reduce conflicts with vehicular traffic by employees and visitors to the campus, especially the elderly, frail or mobility-impaired patients.

IMPROVEMENT MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

Transportation and Circulation

The proposed parking supply could be decreased by 300 excess spaces to ensure that parking facilities would not encourage traffic and parking at the site.

IMPROVEMENT MEASURES CONSIDERED AND REJECTED BY THE PROJECT SPONSOR

Architectural Resources

To encourage potential preservation of 2250 Geary Boulevard and 2256 Geary Boulevard, the project sponsor would make the buildings available to financially responsible parties who would relocate and rehabilitate them at another site. The acquiring party would be responsible for relocation expenses.

Kaiser has rejected this improvement measure because the Eden Group has cooperated with interested parties to secure sites and to relocate these buildings for the past five years to no avail. For a more detailed discussion on the reasons for rejection, see V.A., Architectural Resources, pp. 486 - 487.

E. ALTERNATIVES TO THE PROPOSED PROJECT

The EIR contains a summary of other sites considered and rejected by the project sponsor and analyzes the following eight alternatives:

A. No Project Alternative
B. Reduced Outpatient Service Use -- Reduced Campus Alternative
C. No Shadow Alternative
D. Reduced 2290 Geary Alternative
E. No 2290 Geary Boulevard-- Reduced Campus Alternative
F. No 2290 Geary Boulevard-- Dual Campus Alternative
G. No 2290 Geary Boulevard-- Maximum Development on South Side of Geary Alternative
H. No 2290 Geary Boulevard -- Five Stand-Alone Buildings in Multiple Locations Alternative

The EIR analyzes two alternatives quantitatively (the Reduced Campus Alternative and the No 2290 Geary -- Dual Campus Alternative): the other six alternatives are analyzed qualitatively. The final portion of this section provides a comparison of the various alternatives with respect to Phase 1A/2290 Geary Boulevard, the first approval that would be sought under this EIR.

ALTERNATIVE A: NO PROJECT

The "No Project" Alternative examines two variants: a "no-build" variant and an "existing development potential buildout" variant. The No-Build variant consists of maintaining the existing land uses on the Eden Property as well as the existing outpatient services campus. The mixed-use building at 1401-17 Divisadero Street would be retained. The site of the former Texaco service station is assumed to remain vacant. No buildings would be demolished or constructed. Kaiser would continue to operate in constrained space and could be forced to lease additional space nearby or curtail membership in San Francisco.

The Existing Development Buildout Variant consists of development of the existing Geary Campus and Eden Property under existing zoning regulations. It is likely that the Eden Property would be developed for use by another health maintenance organization with construction of a building similar to Phase 1A of the proposed project. The south side of Geary would be developed to its maximum potential, which would be similar to Alternative G (No 2290 Geary - Maximum Development South of Geary Boulevard). This variant could be slightly larger than the proposed project.

ALTERNATIVE B: REDUCED OUTPATIENT SERVICE USE -- REDUCED CAMPUS

This alternative would provide less parking and would involve much less excavating than the proposed project. It would reduce total space built on the Geary Campus by about 23 percent. Kaiser would renovate and continue to use existing space at the French Campus and use 2350 Geary Boulevard on the Geary Campus, both of which would be vacated under the proposed project. Phases 1A and 1B would be similar to the proposed project. The amount of off-street parking spaces in the Phase 1A building would be reduced from 532 on seven underground levels to 380 on four underground levels. The Phase 1C/2295 Geary Boulevard building would be 36 percent smaller than under the proposed project and no underground parking would be provided. The 2190 O'Farrell Street Garage would be retained. Both Phase 2 buildings (1455 Divisadero Street and New 350 St. Joseph's Avenue) would be smaller than with the proposed project (46 percent and 25 percent, respectively). No underground parking would be constructed in Phase 2. Off-street parking spaces would be reduced to 100 at 1455 Divisadero Street and no parking would be provided at New 350 St. Joseph's Avenue. As a variant, this alternative could include a pedestrian bridge across Geary Boulevard between Phase 1A/2290 Geary Boulevard and 1C/2295 Geary Boulevard.

Phase 1 of this alternative would reduce proposed outpatient services space by 125,000 sq. ft., a 21 percent decrease, compared to the proposed project. The total off-street parking for Phase 1 would be reduced by 444 parking spaces, a 24 percent decrease from the proposed project.

At the completion of Phase 2, the total amount of proposed development physically on the Geary Campus under this alternative would be reduced from 834,000 sq. ft. with the proposed project to 626,750 sq. ft., a 25 percent reduction. The parking spaces for the entire campus at buildout would be reduced from 2,370 to 1,515, a 36 percent reduction.

ALTERNATIVE C: NO SHADOW

The No Shadow Alternative would build essentially the same amount of space at the Geary Campus as the proposed project. The height of the buildings at Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard would be reduced by one floor each to eliminate any new shadow on the library and parking lot at the Hamilton Recreation Center. To accommodate the space needed by Kaiser to complete consolidation of services at the Geary Campus, Phase 2B/New 350 St. Joseph's Avenue would be increased from 97,000 sq. ft. to 169,000 sq. ft. The height of the Phase 2B building would be increased from three to seven stories. This alternative also could include a pedestrian bridge variant connecting the Phase 1A and Phase 1C buildings.

ALTERNATIVE D: REDUCED 2290 GEARY BOULEVARD

The same building sites would be developed under this alternative as with the proposed project. The Phase 1A/2290 Geary Boulevard building would be reduced from 260,000 sq. ft. under the proposed project to 123,700 sq. ft. under this alternative. The building would be four stories in height with two levels of underground parking. Phases 1B/2139 O'Farrell Street and 1C/2295 Geary Boulevard would be the same as with the proposed project. Phase 1A would be reduced by 53 percent and the entirety of Phase 1 by 33 percent upon completion. The floor area ratio (FAR) would be limited to the underlying NC-3 zoning ratio of 3.6 to 1 (compared to a FAR of 6.0 to 1 for the proposed project). This alternative also could include a pedestrian bridge variant connecting the Phase 1A building with the Phase 1C building.

Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue would be developed as with the proposed project. Upon completion of Phase 2, the project would be reduced by 17 percent, providing insufficient capacity to consolidate all employees and operations on the Geary Campus. Leased space or the French Campus would continue in use.

ALTERNATIVE E: NO 2290 GEARY BOULEVARD -- REDUCED CAMPUS

Under this alternative, Phase 1A/2290 Geary Boulevard would not be constructed, and existing uses at the Eden Property would continue. All development at the Geary Campus would be limited to the south side of Geary Boulevard, reducing Phase 1 of the project by 29 percent. Development of Phase 1B, Phase 1C, and Phase 2 would proceed as in the proposed project. The total project would be reduced by 32 percent. Parking would be reduced from 2,342 to 1,810 spaces. Future development, sponsored by another health maintenance organization, could occur on the Phase 1A site.

ALTERNATIVE F: NO 2290 GEARY BOULEVARD -- DUAL CAMPUS

Under this alternative, the Phase 1A/2290 Geary Boulevard building would not be constructed, and the French Campus would be expanded with new construction. Existing uses at the Eden Property would continue. Kaiser would vacate the space it currently occupies at the Eden Property after completion of Phase 1, which is assumed to be re-occupied by other medical-related uses.

The service and employment capacity of this alternative would be equivalent to that of the proposed project because of the intensified use of the French Campus. The renovated existing outpatient services building at 4141 Geary Boulevard on the French Campus would accommodate 75,000 sq. ft. of outpatient services. Except for the 4141 Geary Boulevard building and the three buildings listed on the National Register of Historic Places, all other

buildings at the French Campus would be demolished and replaced with a new 250,000-sq.-ft. outpatient services building, with parking for about 500 cars on three underground levels.

Phase 1C would commence after completion of the new building and renovation of 4141 Geary Boulevard at the French Campus. Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue would proceed as with the proposed project.

All development on the Geary Campus would be limited to the south side of Geary Boulevard. The amount of development on the Geary Campus would be decreased by 36 percent from the proposed project to about 572,000 sq. ft. of outpatient, ancillary support and administrative space. The total floor area of development between the two campuses would be the same as under the proposed project; however, uses at the French Campus would be about 110 percent higher than existing 1995 uses.

ALTERNATIVE G: NO 2290 GEARY BOULEVARD -- MAXIMUM DEVELOPMENT ON SOUTH SIDE OF GEARY BOULEVARD

Under this alternative, Phase 1A/2290 Geary Boulevard, would not be constructed. All development on the Geary Campus would be concentrated on the south side of Geary Boulevard. Phases 1B, 1C and 2A would be developed as for the proposed project. Phase 2B/New 350 St. Joseph's Avenue would be increased from 97,000 sq. ft. to 125,000 sq. ft., a seven-story building with six levels of underground parking for 400 cars. At the completion of Phase 2, a total of 602,000 sq. ft. of development and 1,685 parking spaces would be developed on the Geary Campus.

This alternative would result in a 26 percent reduction in the campus size from that envisioned for the proposed project, providing insufficient space for Kaiser to consolidate all employees and operation on the Geary Campus. Leased space or the French Campus would continue in use.

ALTERNATIVE H: NO 2290 GEARY BOULEVARD -- FIVE STAND-ALONE BUILDINGS IN MULTIPLE LOCATIONS

Under this alternative, instead of developing the Phase 1A/2290 Geary Boulevard building , five stand-alone outpatient services buildings would be developed in five different neighborhoods to serve the needs of various communities in the City. The communities would be Chinatown/North Beach; Mission District; Sunset District; Downtown (C-3) District; and Bayview Hunter's Point/South Bayshore/Ingleside/Little Hollywood. Each outpatient services building would contain about 50,000 sq. ft. Impacts associated with the Phase 1A structure could occur (to a lesser degree) at each of the five stand-alone buildings, depending on the locations selected. Phases 1B/2139 O'Farrell Street, 1C/2295 Geary Boulevard, and Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue would be developed for the proposed project. The total amount of new development would be similar to that of the proposed project.

PHASE 1A/2290 GEARY BOULEVARD: COMPARATIVE ANALYSIS OF ALTERNATIVES

The EIR analyzes, with respect to the project and the alternatives to the project, impacts resulting from each phase and subphase of the project. The first project approval that will be sought is for Phase 1A/2290 Geary Boulevard on the Eden Property. The building is a part of Phase 1 of the project. All Phase 1 impacts are identified in Chapter IV. Environmental Impacts, and mitigated measures are included, where appropriate, in Chapter V. Mitigation Measures. As the EIR focuses on the impacts of the Geary Campus Project at the end of each Phase it should be noted that in no case would Phase 1A have any impacts which are undisclosed or which would be greater than shown for Phase 1 as a whole.

As a convenience for the reader, in the context of the initial project approvals for Phase 1A/2290 Geary Boulevard, the following comparison of the various alternatives (in contrast to the project) solely with respect to Phase 1A/2290 Geary Boulevard is provided.

In general, and subject to the following exceptions and qualifications, the impacts of Phase 1A/2290 Geary Boulevard under the project and Phase 1A under most of the alternatives where Phase 1A is developed on the Geary Campus are similar. The important differences among the alternatives which do exist concerning Phase 1A relate exclusively to (1) whether the Eden Property is developed at all, and (2) if developed, the size of the Phase 1A/2290 Geary Boulevard structure, the amount of off-street parking included in that building, and the depth of excavation for that parking.

Under Alternative A (No Project [No Build]), E (No 2290 Geary-Reduced Campus), F (No 2290 Geary-Dual Campus), G (No 2290 Geary-Maximum Development on South Side of Geary), and H (No 2290 Geary-Five Stand-Alone Buildings in Multiple Locations), the Eden Property would remain undeveloped; therefore, there would be (in contrast to the project) no new impacts on the Eden Property or in the immediate vicinity resulting from these alternatives. With respect to Alternatives F, G and H, however, although no new impacts would occur on or in the vicinity of the Eden Property, the result of nondevelopment of that site and the concomitant, more-intensive (than the project) development at the French Campus (Alternative F), the south side of Geary Boulevard (Alternative G) or elsewhere in the City (Alternative H) would be environmental impacts at such other locations. Under the Existing Development Potential Variant of the No Project Alternative and, in the event that non-construction on the Eden Property under Alternatives E, F, G and H results in the development of that site by another medical office building user, the impacts of such a building in each case could be similar to the project, depending on the size and design of the building.

Alternative B involves reduction of on-site parking facilities from seven floors with 532 spaces to four floors with 380 spaces; Alternative D would further reduce parking to two floors with 281 parking spaces. As a result, the depth of, and time period for, excavation of Phase 1A/2290 Geary Boulevard would be correspondingly reduced, effecting a proportionate reduction in potential impacts under the headings of Cultural Resources; Soils, Geology and Seismicity; Hydrology and Water Quality; and Contaminated Soils and Hazardous Wastes.

Alternatives C and D involve reduction of the building height and floor area of Phase 1A/2290 Geary Boulevard, by one floor and 29,000 sq. ft. (to 231,000 sq. ft. total) in the case of Alternative C (No Shadow) and by four floors and 137,000 sq. ft. (to 123,000 sq. ft. total) in the case of Alternative D (Reduced 2290 Geary Boulevard). The reduction in height primarily affects shadows on the library and parking lot at Hamilton Recreation Center (eliminated in both cases) and reduces the visual impact of the structure with respect to urban design issues (slightly in the case of Alternative C and more substantially in the case of Alternative D). The reduction in floor area under these alternatives would effect a proportional reduction of impacts at the Eden Property site (slightly with respect to Alternative C; more substantially in the case of Alternative D) with respect to Wind; Transportation and Circulation; Noise; Air Quality; Hazardous Materials; Utilities and Community Services; and Energy.

II. PROJECT DESCRIPTION

A. SAN FRANCISCO KAISER MEDICAL CENTER GEARY CAMPUS DEVELOPMENT PROJECT OBJECTIVES

Kaiser Foundation Hospitals (Kaiser), a California non-profit public benefit corporation health maintenance organization, proposes to consolidate and centralize its health services delivery facilities at its Geary Campus in San Francisco, in order to:

- provide comprehensive health care services at an affordable cost;
- emphasize preventive care through health education and routine care, and provide on-site space for educational programs to promote the health of Kaiser members and the San Francisco community;
- consolidate and centralize its health service facilities in a campus environment through the construction of new and replacement of existing outpatient service buildings in close proximity to its Hospital at 2425 Geary Boulevard to maximize member convenience and operational efficiencies;
- replace existing facilities to assure planning flexibility and accommodate future growth and changes in medical practice and technology;
- construct or purchase new outpatient services facilities to meet Kaiser's current and future space needs, and to provide appropriate facilities for outpatient services to meet changes in health care practices;
- replace functionally outmoded and seismically deficient facilities with new structures meeting all current life safety, fire and seismic Building Code requirements for health care facilities;
- provide health care services in Kaiser-owned facilities;
- decrease auto-dependency and increase transit use and carpools;
- provide sufficient off-street parking within the campus boundaries to meet the need of members, employees and visitors without encouraging increased dependence on the automobile, thereby reducing impacts on availability of on-street parking in the neighborhood;
- implement the provisions of the Geary Boulevard/Divisadero Street Special Use District, Section 249.13 of the City Planning Code, an initiative ordinance (Proposition K) which designates the Eden Property (2290 Geary Boulevard site) for use for outpatient medical care facilities.

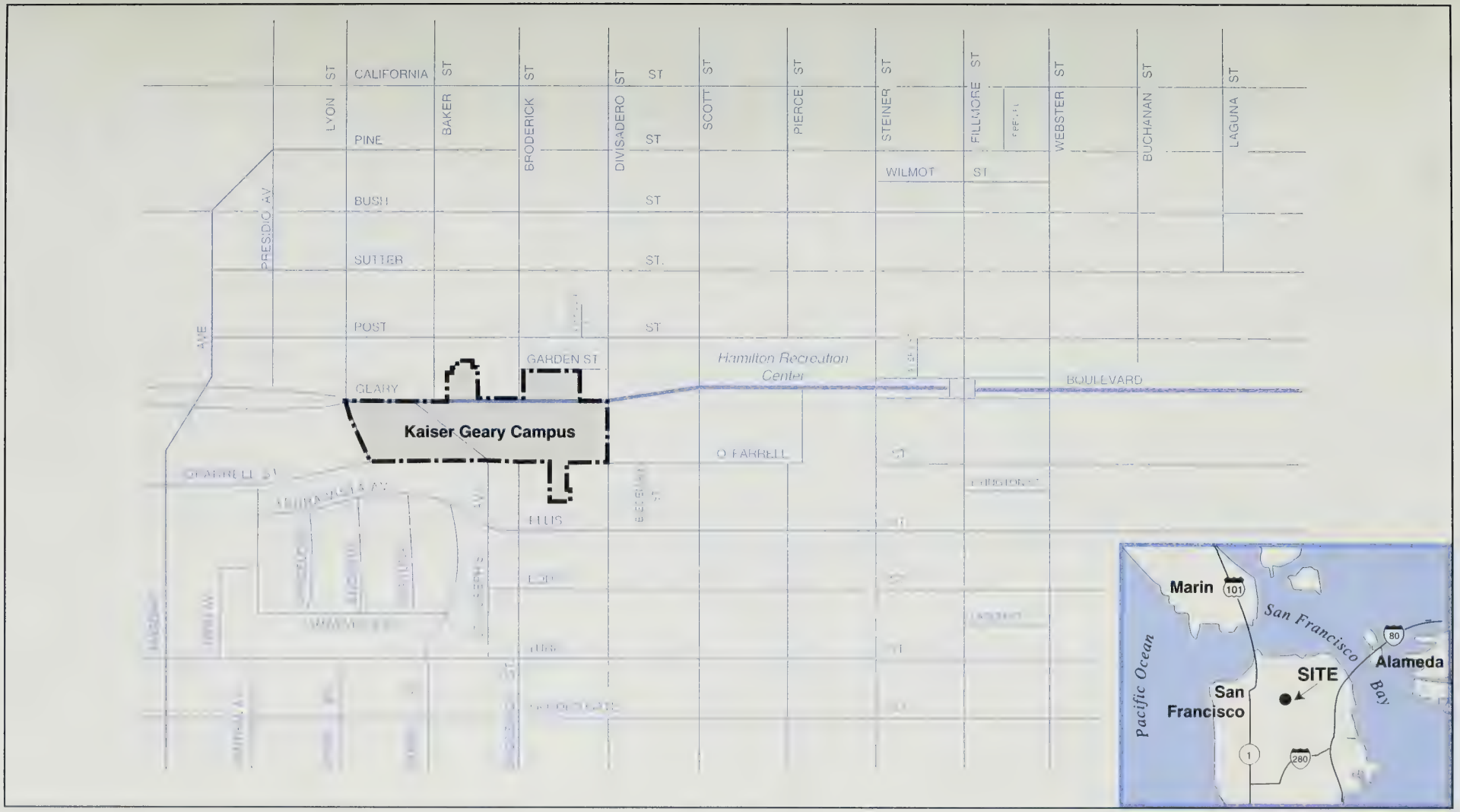
The San Francisco Kaiser Medical Center Geary Campus Development Project (hereinafter referred to as the Kaiser Geary Campus Project) has been designed to implement Kaiser's objectives. Appendix B, Project Sponsor's Objectives and Planning Background, pp. A.8 - A.25, discusses the objectives in more detail. The location of the Geary Campus is shown on Figure II.A.1.

PROJECT SPONSOR AND CO-APPLICANTS

The project sponsor is Kaiser Foundation Hospitals (Kaiser). The co-applicants are Kaiser and The Eden Group (Eden). Kaiser has entered into conditional agreements to purchase the Eden Property (shown in the context of the Geary Campus on Figure II.A.2, p. 46), pursuant to which Eden has submitted a building permit application for the construction of an outpatient services building at 2290 Geary Boulevard (Phase 1A of the proposed project), designed to meet Kaiser's service needs. Because the project proposes development of the Eden Property for use by Kaiser as well as development by Kaiser of other buildings on the Geary Campus, a joint environmental review document is being prepared to analyze the combined environmental impact of these two proposed developments (the "project" as hereinafter described).

Co-Applicant Kaiser

Kaiser owns and operates two campuses in San Francisco -- the Geary Campus and the French Campus. Kaiser leases additional outpatient services and other support offices space near its Geary Campus, including space in buildings on the Eden Property. Kaiser is proposing to redevelop the Geary Campus including the Eden Property to meet its existing and future outpatient services needs. The French Campus, which would be used for temporary relocation



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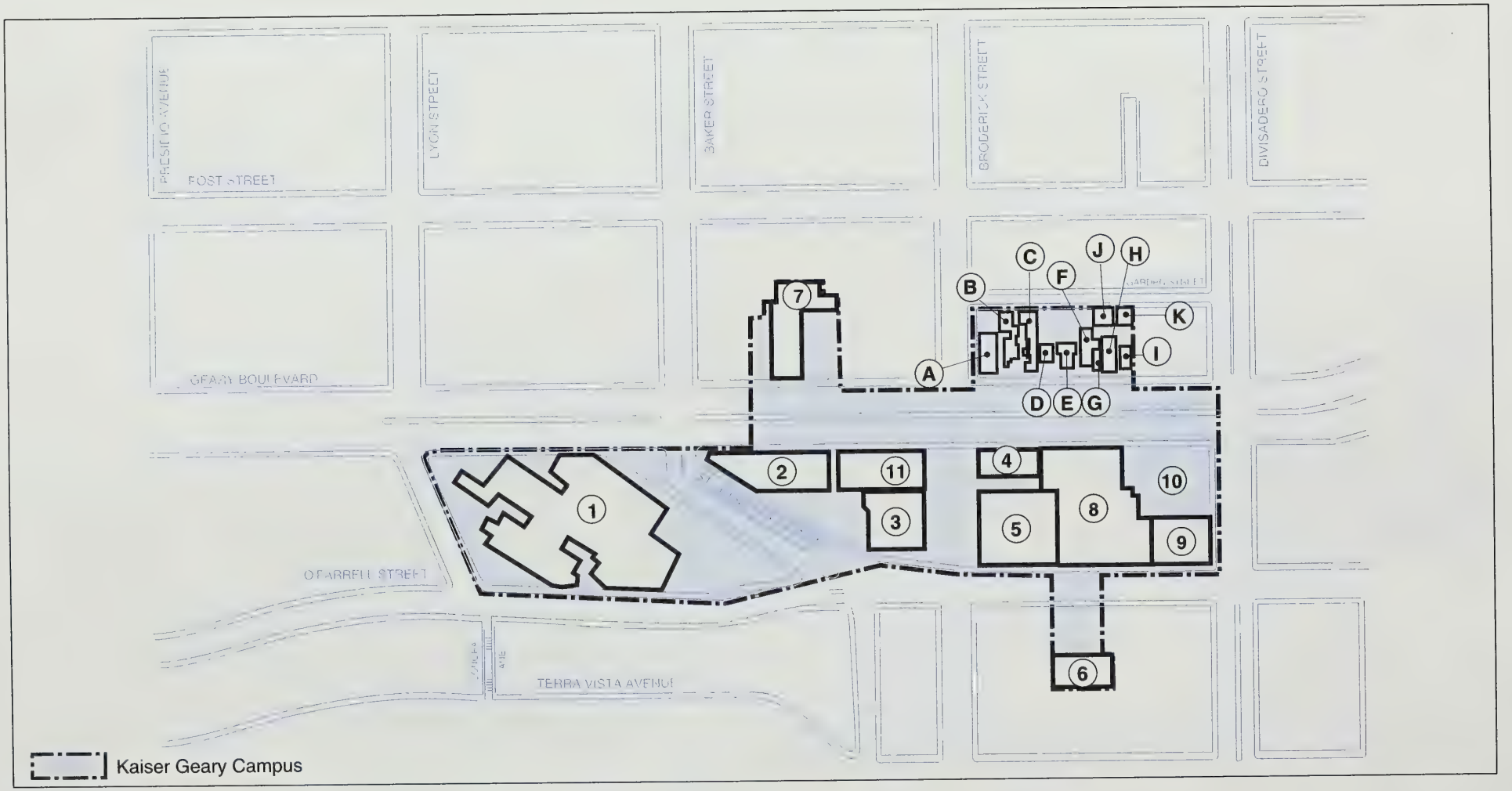
SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.A.1
Project Location



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1 2425 Geary (Hospital)
2 350 St. Joseph's Avenue
3 2200 O'Farrell Street
4 Annex Building
5 2190 O'Farrell Parking Garage
6 2139 O'Farrell Street
7 2350 Geary Boulevard
8 2130 O'Farrell Parking Garage
9 1401-17 Divisadero Street
10 Texaco Site (vacant)
11 Modular Structures (2241 Geary Boulevard)

EDEN PROPERTY

A 2292-96 Geary Boulevard
B 2280 Geary Boulevard /41-47 Garden Street
C 2270-74 Geary Boulevard
D 2266 Geary Boulevard
E 2256 Geary Boulevard
F 2250 Geary Boulevard
G 2240 Geary Boulevard
H 2242 Geary Boulevard
I 2232-38 Geary Boulevard
J 25 Garden Street
K 11-19 Garden Street

SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.A.2
Building Addresses Comprising the Kaiser Geary Campus

of existing outpatient services until planned developments are completed at the Geary Campus, occupies the block bounded by Geary Boulevard, Fifth Avenue, Anza Street and Sixth Avenue, Assessor's Block 1539. Except for tenant improvement permits for the interior of the buildings, there is no present plan to expand the French Campus. The 4141 Geary Boulevard building was occupied by 88 physicians prior to purchase by Kaiser. As of May 15, 1995, this building was occupied by 19 private physicians, and 25 Kaiser physicians.

Co-Applicant Eden

Eden owns, has an equitable interest in, and/or is authorized to pursue all necessary permit applications for 11-19 Garden Street and 2230 to 2296 Geary Boulevard, which is generally bounded by Geary Boulevard, Broderick, Garden, and Divisadero Streets, referred to herein as the Eden Property (see Figure II.A.2, p. 46). In 1992, the voters of San Francisco passed an initiative ordinance, which was adopted as Section 249.13 of the City Planning Code, creating the Geary Boulevard/Divisadero Street Special Use District. This overlay district changes the height, bulk and allowable floor area ratio (FAR) of the Eden Property in connection with the development of a building to be used for outpatient services by a health maintenance organization. The co-applicant Eden now seeks approval of a proposed project that would implement the intent and purposes of this initiative ordinance. The building proposed for the Eden Property is referred to in this document as Phase 1A/2290 Geary Boulevard.

B. PROJECT LOCATION

LOCATION

The subject of this EIR is proposed development on the Kaiser Geary Campus. As defined in this EIR the Kaiser Geary Campus includes the existing campus located on the south side of Geary Boulevard between Lyon Street and Divisadero Street, the 2139 O'Farrell Building and the 2350 Geary Boulevard Building, and the Eden Property on the north side of Geary

Boulevard to be purchased by Kaiser. The Eden Property is developed with mixed-use (residential/commercial/retail) and medical offices. The existing campus contains Kaiser Hospital, outpatient services space and ancillary support and administrative offices, and a residential/retail mixed-use structure at 1401-17 Divisadero Street. The campus is in the Western Addition area of San Francisco, about one and one-half miles west of Civic Center and encompasses about five acres on five city blocks (see Figure II.A.1, p. 45). Primary access is provided by Geary Boulevard and Divisadero Street. The campus is also served by O'Farrell and Broderick Streets, and St. Joseph's Avenue. Figure II.B.1 shows the Assessor's Block and Lots for the Geary Campus.

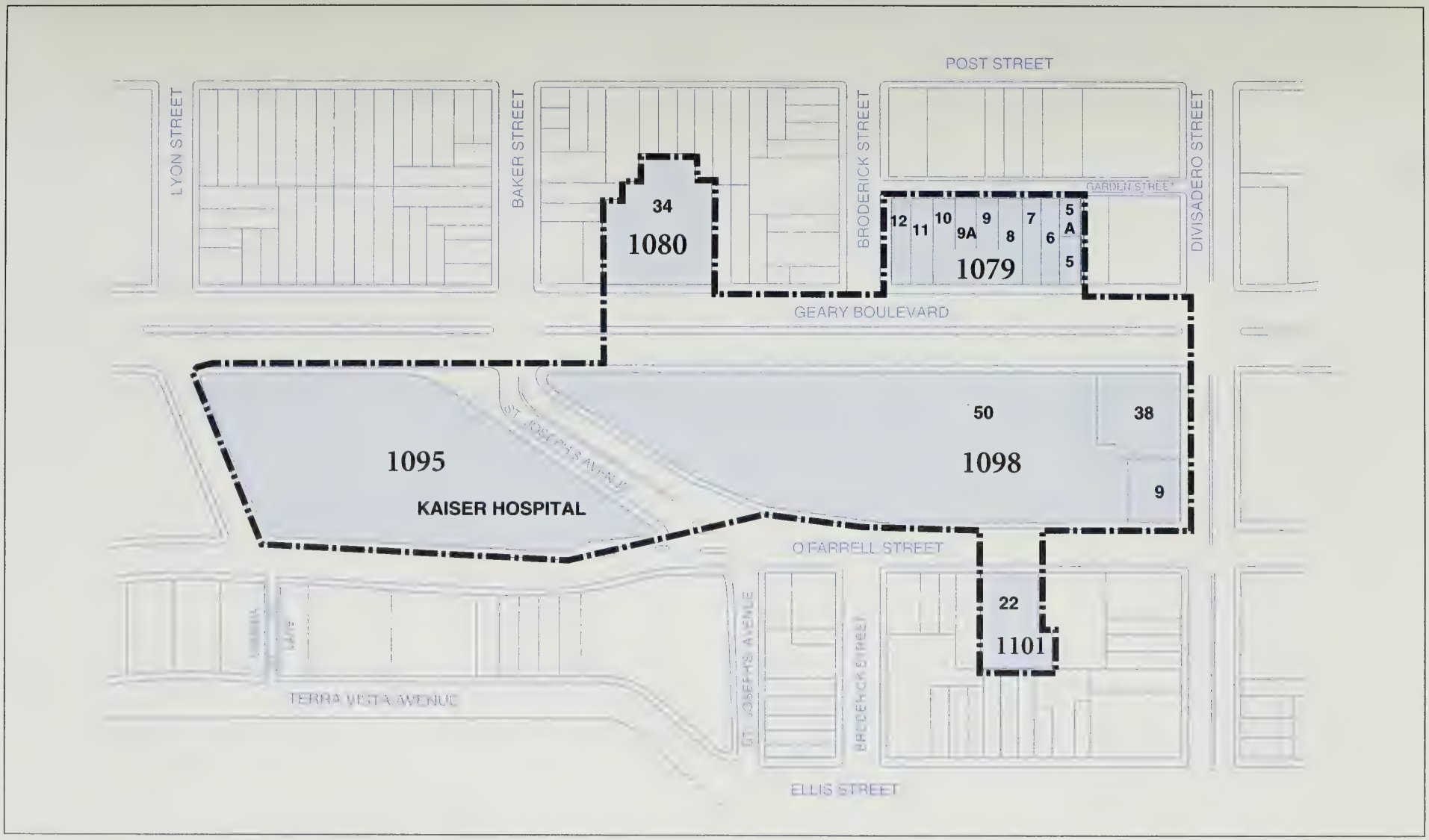
EXISTING USES

Geary Campus

The subject of this EIR is the Kaiser Geary Campus, including the Eden Property on the north side of Geary Boulevard. The Geary Campus contains Kaiser Hospital, outpatient services spaces and ancillary support and administrative offices. The campus also contains residential units, and small office and commercial spaces, on the Eden Property and at 1401-17 Divisadero Street.

Kaiser uses on the Geary Campus presently consist of about 230,600 sq. ft. of owned and leased outpatient, administrative and ancillary support space, approximately 336,400 sq. ft. of inpatient space at Kaiser Hospital, and approximately 388,000 sq. ft. of parking garages. Kaiser leases approximately 60,500 sq. ft. within two blocks of the Geary Campus, as well as space at other locations in San Francisco.[1] See Table II.B.1, pp. 50 - 51, for Assessor's Block and Lot Numbers, floor area, and numbers of stories and parking spaces for existing buildings on the Geary Campus.

The Eden Property has a site area of 34,850 sq. ft. and contains eleven buildings: 11-19 Garden Street; 25 Garden Street; 2232-38 Geary Boulevard; 2240 Geary Boulevard; 2250 Geary Boulevard; 2256 Geary Boulevard; 2262-66 Geary Boulevard; 2270-74 Geary Boulevard;



SOURCE: FIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.B.1
Assessor's Blocks and Lots Comprising the Geary Campus

TABLE II.B.1: KAISER GEARY CAMPUS EXISTING USES (INCLUDING THE EDEN PROPERTY)

Building Phase	Assessor's Block & Lot Number	Buildings to be Demolished	Height (Stories)	Gross Floor Area[1] (sf)	Kaiser: Medical Offices[2] (#)	Kaiser: Medical Offices[2] (sf)	Kaiser: Patient Services[3]	Kaiser: Admin. Offices[4]	Kaiser: Support Services[5]	Kaiser: Other[6]	Non-Kaiser: Commercial & Retail	Non-Kaiser: Offices	Non-Kaiser: Dwelling Units (#/sf)	Parking Spaces[7] (#)	Parking[7] (sf)
Phase 1															
1A	A.B. 1079; Lots 5, 5a, 6, 7, 8, 9, 9A, 10, 11, 12	11-19 Garden St., 2230 through 2296 Geary Blvd.	2-3	48,100	(+)	1,600	1,600	2,500	2,300	6,500	8,900[2a]	18,900	8/5,800	8	surface only
1B	A.B. 1101; Lot 22	2139 O'Farrell St.	3	5,400	1	1,200	0	2,800	0	1,400	0	0	0/0	13	surface only
	A.B. 1098; Lot 9	1401-17 Divisadero St.	3	17,500	0	0	0	0	0	0	6,000	0	21/11,500	0	0
1C	A.B. 1098; Lot 50	2190 & 2200 O'Farrell St.	6,8	116,300	134	67,800	6,000	2,600	12,900	27,300	0	0	0/0	408	163,300
	A.B. 1098; Lot 38	2201 Geary Blvd.	0	Vacant Lot	0	0	0	0	0	0	0	0	0/0	0	0
Total Demolished for Phase 1:		**16**		**187,300**	**135(+)**	**70,600**	**7,600**	**7,900**	**15,200**	**35,200**	**14,900**	**18,900**	**29/17,300**	**429**	**163,300**
Phase 2															
2A	A.B. 1098; Lots 9,38	0	0	Vacant Lots	0	0	0	0	0	0	0	0	0/0	0	0
2B	A.B. 1098; Lot 42	350 St. Joseph's Ave.[7]	2	31,400	6	4,700	9,100	2,700	4,400	10,500	0	0	0/0	0	0
Total to be Demolished for Phase 2:		**1**		**31,400**	**6**	**47,000**	**9,100**	**2,700**	**4,400**	**10,500**	**0**	**0**	**0/0**	**0**	**0**
Total to be Demolished for Project:		**17**		**218,700**	**141(+)**	**75,300**	**16,700**	**10,600**	**19,600**	**45,700**	**14,900**	**18,900**	**29/17,300**	**429**	**163,300**
Existing Buildings to be Retained															
Kaiser Hospital	A.B. 1095 (2425 Geary)		8	336,400(+)	0	0	0	0	0	336,400	0	0	0/0	15	surface/ covered
2350 Geary Blvd.[7]	A.B. 1080; Lot 34		3	29,300	682	22,600	700	0	800	5,200	0	0	0/0	28	surface only
2130 O'Farrell Garage	A.B. 1098; Lot 50		7	33,700	0	0	0	16,700	17,000	0	0	0	0/0	625	224,700
Total for Existing Buildings to be Retained				**399,400(+)**	**68**	**22,600**	**700**	**16,700**	**17,800**	**341,600**	**0**	**0**	**0/0**	**668**	**224,700**

(Table II.B.1 cont.)

Notes:

1. *Gross floor area,* exclusive of parking.
2. *Medical Offices:* Medical staff offices, support staff work spaces, and examination and procedure rooms used to provide outpatient medical treatment.
3. *Patient Services:*
   - Offices of other direct patient care providers (including, but not limited to, health educators, social workers, home health care workers, and physical therapists),
   - Rooms for diagnostics and treatment services (including, but not limited to, chemotherapy, clinical laboratory, EKG, EEG, imaging, infusion therapy, respiratory therapy, physical therapy, physical therapy and other outpatient treatment services), and
   - Retail services (including, but not limited to, health education materials, optical sales, and pharmacy).
4. *Administrative Offices:* Offices and related support space for any administrative functions that support the operations of various hospital, health plan, and medical group services.
5. *Support Services:* Areas that support all facility operations, as well as provide public and staff amenities (conference/meeting rooms, cafeteria/restaurants, and fitness facilities).
6. *Other:* Vacant space of the types listed above or including, but not limited to, common building space such as atriums, elevators, foyers, main corridors, outside rental space.
7. *Parking:* Above- or below-ground parking structures only.
8. 5,560 square feet of this commercial/retail space is vacant.
9. To be vacated in Phase 1.
10. Outpatient services, to be vacated in Phase 1; no other changes proposed.

Source: EIP Associates, based on information provided by Kaiser Foundation Hospitals and the Eden Group.

2280-82 Geary Boulevard (41-47 Garden Street); and 2292-2296 Geary Boulevard (see Figure II.A.2, p. 46). Kaiser currently leases about 14,500 sq. ft. in two buildings on the Eden Property.

ZONING

The Geary Campus includes property in the NC-2 (Small Scale Neighborhood Commercial) District; NC-3 (Moderate Scale Neighborhood Commercial) District; RM-1 (Residential Mixed District, Low Density); RM-3 (Residential Mixed District, Moderately High Density); and RH-3 (Residential House District, Three-Family).

The Eden Property, under the land use jurisdiction of the Department of City Planning, is within the Geary Boulevard/Divisadero Special Use District (Section 249.13 of the City Planning Code). The Special Use District controls apply only to the development of outpatient facilities affiliated with a health maintenance organization. In addition to outpatient services, ground-floor uses permitted in NC-3 districts are also allowed. Outpatient facility is a principal permitted use under Section 249.13 of the City Planning Code. The district permits an FAR of 6:1, and is in a 105-X Height and Bulk district.

Medical offices generally are permitted as a conditional use in the NC-3 districts under the City Planning Code. Existing height and bulk districts range from 40-X to 105-E and 105-X. The Floor Area Ratios (FAR) range from 3.6:1 to 6:1. Portions of the project site are also governed by the San Francisco Redevelopment Agency (SFRA) Western Addition Redevelopment Plans for Areas A-1 and A-2. For those portions of the Geary Campus under the jurisdiction of the SFRA, the land use designations under the Western Addition Area A-1 Plan are community shopping, or M-4 (medium-density residential). The land use designation in the Western Addition Area A-2 Plan is institutional with an alternative designation of medium-density residential. There is no height limit for the Area A-1; the applicable height limit for the Area A-2 site is 40 ft.

BUILDINGS TO BE DEMOLISHED

The project would redevelop part of the Geary Campus, including the 2200 O'Farrell Street outpatient services building, 2190 O'Farrell Street Garage, 2139 O'Farrell Street administrative building, 350 St. Joseph's Avenue outpatient services building, 1401-17 Divisadero Street mixed-use building, the vacant site at 2201 Geary Boulevard and all of the eleven buildings on the Eden Property containing medical, retail/commercial, office, and residential uses (see Figure II.A.2, p. 46, and Table II.B.1, pp. 50 - 51).

C. PLANNING BACKGROUND OF KAISER FOUNDATION HOSPITALS SAN FRANCISCO MEDICAL CENTER

INSTITUTIONAL MASTER PLAN

Kaiser has developed the Geary Campus since 1954, when Kaiser Hospital at 2425 Geary Boulevard was built. In the 1960s, the 2190 O'Farrell Street garage and 2200 O'Farrell Street building were completed, and the 350 St. Joseph's Avenue building was acquired and renovated for Kaiser use.

In 1983, Kaiser submitted an Institutional Master Plan (IMP) to the City and County of San Francisco pursuant to the requirements of Section 304 of the City Planning Code. At that time, Kaiser's San Francisco Medical Center consisted of the Geary Campus in the Western Addition, south of Geary Boulevard at St. Joseph's Avenue. While the 1983 IMP discussed Kaiser's need for additional outpatient services space, the document focused on the expansion of the Hospital building at 2425 Geary Boulevard on Assessor's Block 1095, which included the construction of a new North Wing, an addition to the East Wing, and the construction of a parking garage at 2130 O'Farrell Street on Assessor's Block 1098.

In October 1987, the City Planning Commission certified the Final Environmental Impact Report (EIR), approved the hospital expansion, and recommended approval of the

2130 O'Farrell Street Garage on the Geary Campus. In December 1987, the Board of Supervisors affirmed the decisions of the City Planning Commission. The additions to the Hospital were completed in 1992. The 2130 O'Farrell Street Garage was approved by the SFRA Commission in January 1988, and completed in 1991.

Since 1983 use of inpatient services has decreased due to new medical technology, implementation of innovative outpatient services, and efforts to keep health care costs down. The health care industry has experienced a radical shift in demand from inpatient care to outpatient services. In 1989, to meet the need for outpatient services for its members, Kaiser purchased the French Hospital (the French Campus) in the 4100 Block of Geary Boulevard, about 1.25 miles west of the Geary Campus.

In 1992, Kaiser purchased the vacant parcel previously occupied by a Texaco Station located at the southwest corner of Geary Boulevard and Divisadero Street. In 1995, Kaiser purchased the 1401-17 Divisadero Street mixed-use building (residential/retail) located at the northwest corner of O'Farrell Street and Divisadero Street.

Kaiser submitted another major update to its IMP in 1994. The 1994 IMP focused on the need to increase the amount of outpatient services space to meet its existing space deficit and projected membership growth. This IMP estimated that there was an existing deficit of 217,250 sq. ft. of outpatient services space. The existing deficit was projected to increase to 265,350 sq. ft. in 1997, and to 360,250 sq. ft. by year 2002, if no expansion plan were carried out. The 1994 IMP pointed out that even with the existing buildings on the French Campus, Kaiser still has inadequate outpatient services space. Because of existing space deficits, Kaiser employees have operated in a crowded work environment, and Kaiser has had to lease space in the vicinity of the Geary Campus.

At the time the 1994 IMP was submitted, Kaiser had control over only the Kaiser buildings on the Geary Campus, 1401-17 Divisadero Street and the French Campus. Therefore, the IMP discussed an expansion plan within the boundaries of the Geary and French Campuses. The possibility of developing the Eden Property for use by Kaiser was disclosed in the 1994 IMP.

The availability of the Eden Property led Kaiser to reevaluate its long-range development plan to focus on consolidation of Kaiser operations at the Geary Campus in proximity to Kaiser Hospital. In 1995, Kaiser entered into agreements to acquire the Eden Property, located between Divisadero Street and Broderick Street on Geary Boulevard. An update to the 1994 IMP, which will reflect Kaiser's current expansion plan, is expected to be submitted to the Commission in early 1997; with the public hearing on the IMP projected for late spring 1997.

Recently, membership growth has slowed, reducing the projected space demands that were shown in the 1994 IMP. The increase in outpatient service capacity resulting from the Geary Campus project that is the subject of this EIR would substantially meet Kaiser's growth and service demand, as currently projected, through the year 2010.

OUTPATIENT SERVICES SPACE NEED

During the 1980s, the AIDS crisis put additional demand on Kaiser San Francisco Medical Center resources. Kaiser pioneered innovative outpatient treatment services for HIV patients. This, in addition to advances in medical technology and a shift to managed care, has decreased the need for and duration of hospitalization and shifted future demand to more outpatient services space.

Increased use of day surgery and other preventive services (such as endoscopic procedures) requires additional procedure and recovery areas. Advanced medical technology and specialty medical practices demand outpatient treatment space for every specialty; increased use of group therapy sessions, support groups and health education also demand more space.

The IMP planning process demonstrated to Kaiser that there was insufficient land on the then-existing Geary Campus to develop all the outpatient services space needed. Except for its San Francisco Medical Center, all Kaiser facilities in California generally meet a staffing ratio of 3.6 staff to 1 health care provider, and a space requirement of approximately 1,600 sq. ft. for each health care provider. A health care provider is defined as a doctor or other licensed medical care

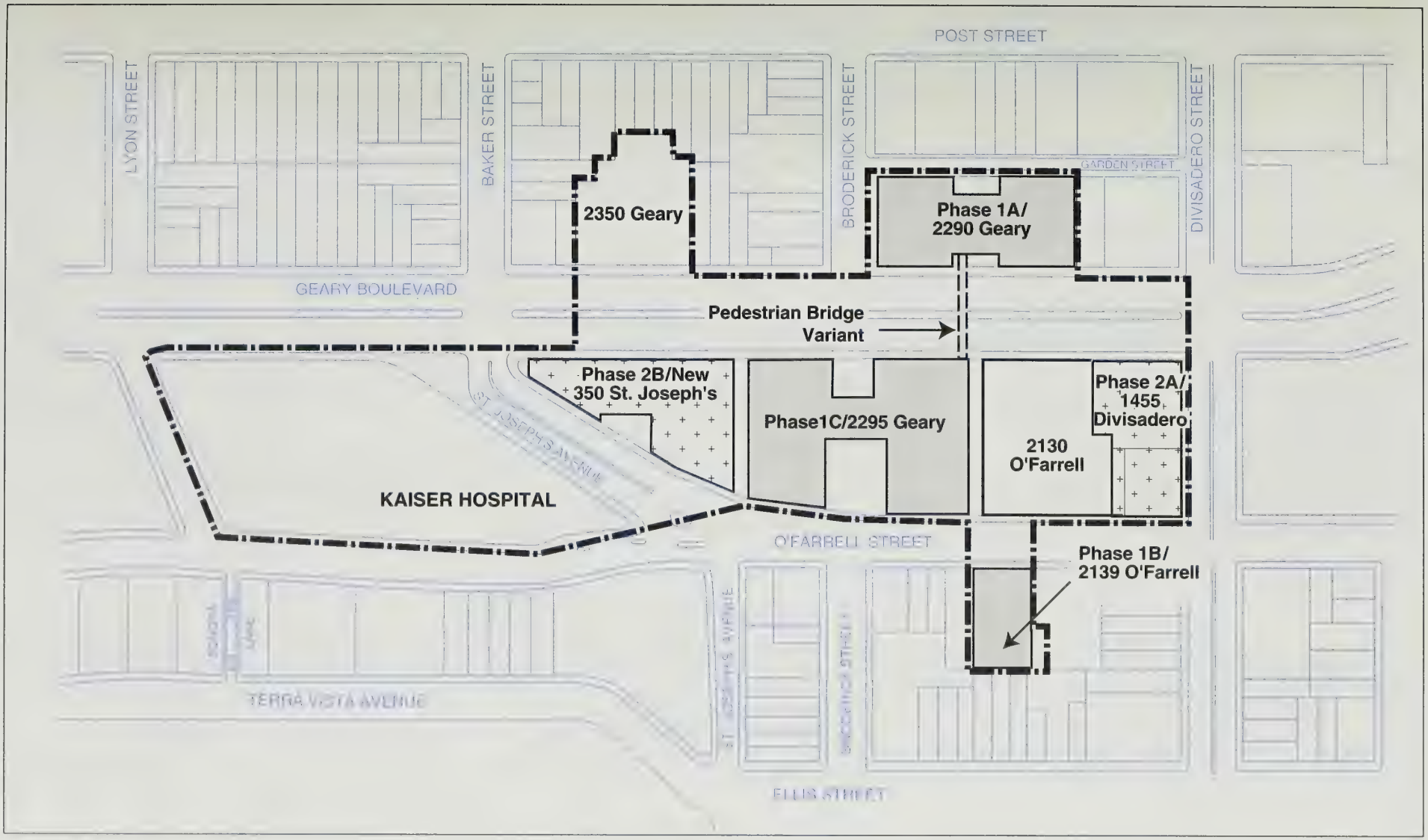
professional including medical residents. After submission of the 1994 IMP, Kaiser began to assess the functional linkages between departments and to address the logistics of implementing its relocation and consolidation plan. Kaiser used its health care provider staffing and space requirement ratios and considered the logistical demands of its many departments in developing the plan to consolidate Medical Center operations at the Geary Campus.

The result of this analysis process was the development of the space and use programs for Phase 1. The sizes of the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings are the minimum necessary to accomplish consolidation of Kaiser's operations and accommodate projected growth through the year 2000. Kaiser anticipates a 10 percent increase in patient visits by the year 2000. Remaining capacity at the French Campus would be used during the construction period to house temporarily dislocated outpatient service departments currently on the Geary Campus. The development program for Phase 2 is designed to meet the needs of Kaiser's projected increase in membership through the year 2010. Kaiser anticipates an increase of 27 percent over year 1995 patient visit levels by the year 2010.

For further information on the history and background of the project, including the space planning process, see Appendix B, pp. A.8 - A.25.

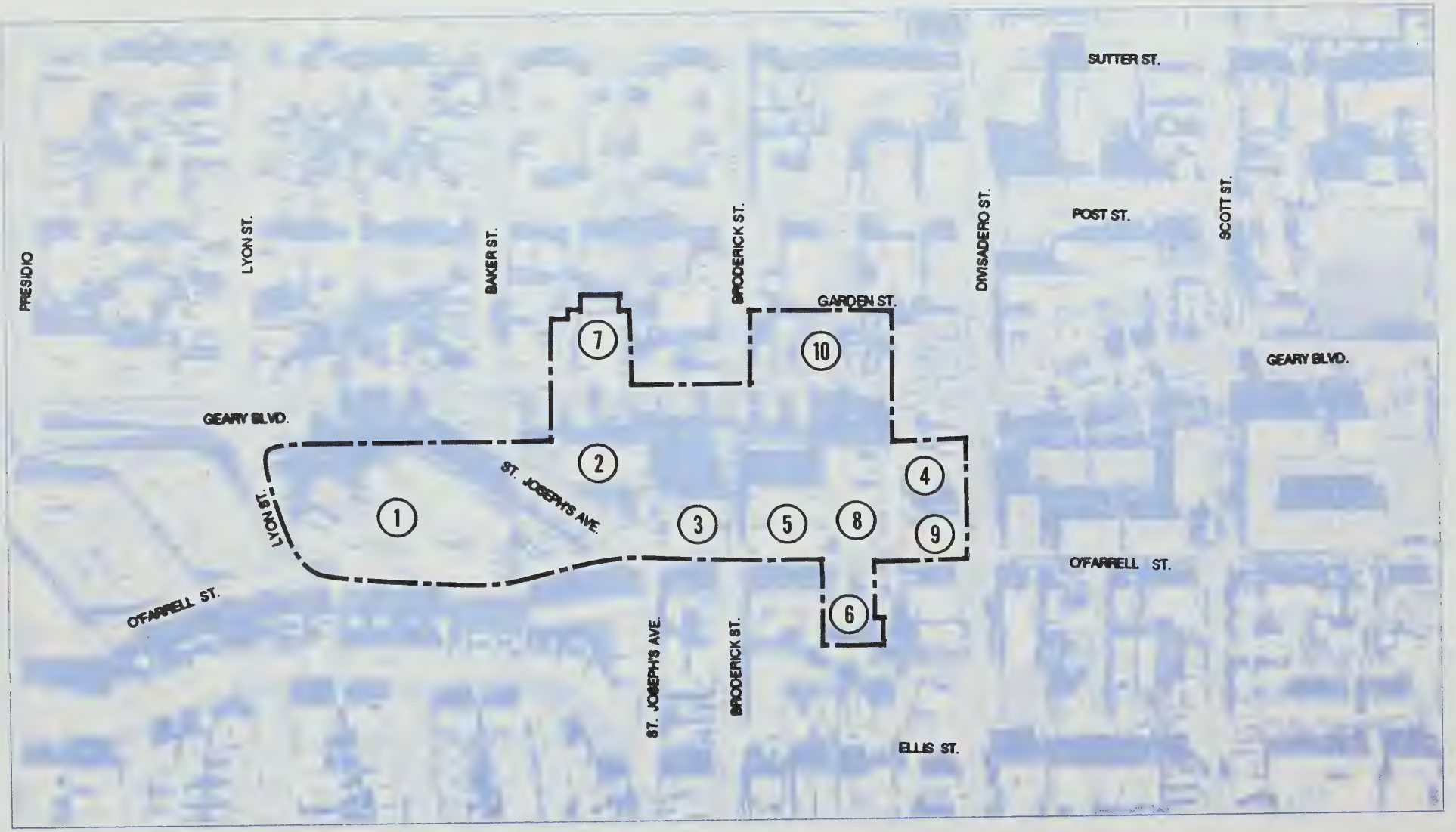
D. PROJECT CHARACTERISTICS

The Geary Campus project would include the demolition, construction and redevelopment of much of the outpatient functions of Geary Campus (except the 2130 O'Farrell Street Garage and 2350 Geary Boulevard), and the demolition of all existing buildings and the construction of a new building on the Eden Property. The proposed project would be implemented in two phases. The project sponsor would construct three buildings in Phase 1 and two buildings in Phase 2. See Figure II.D.1 for a phasing plan of the proposed project. See Figure II.D.2, p. 58, for an aerial perspective of the project vicinity. See Table II.D.1, p. 59, for proposed uses. Operations at the Hospital would not change over the course of the project.



SOURCE: EIP Associates

Figure II.D.1
Kaiser Geary Campus: Phasing Plan



1. 2425 Geary Boulevard (Hospital)
2. 350 St. Joseph's Avenue
3. 2200 O'Farrell Street
4. Texaco Site (vacant)
5. 2190 O'Farrell Parking Garage
6. 2139 O'Farrell Street
7. 2350 Geary Boulevard
8. 2130 O'Farrell Parking Garage
9. 1401-17 Divisadero Street
10. Eden Property

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SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.2
Kaiser Geary Campus: Aerial Perspective

TABLE II.D.1: KAISER GEARY CAMPUS PROJECT, PHASES 1 AND 2
SUMMARY OF PROPOSED NEW CONSTRUCTION

Building Phase	Buildings to be Constructed	Height (Stories /feet)	Gross Floor Area (gsf)	Medical Offices[1] (staff)	Medical Offices[1] (sf)	Patient Services[2] (sf)	Admin. Offices[3] (sf)	Support Services[4] (sf)	Other[5] (sf)	Parking Spaces[6] (#)	Parking[6] (sf)
1A	2290 Geary Blvd.	8/105	260,000	150	195,000	32,500	16,300	8,100	8,100	532	263,200
1B	2139 O'Farrell St. Resid.	4/40	22,700	0	0	0	0	0	0	21	surface
1C	2295 Geary Blvd.	8/105	350,000	250	208,000	52,000	30,000	30,000	30,000	700	300,500
Subtotal for Phase 1:			**632,700[7]**	**400**	**403,000**	**84,500**	**46,300**	**38,100**	**38,100**	**1,253**	**563,700(+)**
Phase 2, by Year 2010											
2A	1455 Divisadero St.	6/81	127,000	70	80,000	20,000	5,000	22,000	0	200	99,200
2B	New 350 St. Joseph's Ave.	3/52	97,000	0	0	30,000	30,000	30,000	7,000	270	128,400
Subtotal for Phase 2:			**224,000**	**70**	**80,000**	**50,000**	**35,000**	**52,000**	**7,000**	**470**	**227,600**
Total for Project:			**856,700**	**470**	**483,000**	**134,500**	**81,300**	**90,100**	**45,100**	**1,721**	**791,300**

Notes:

1. *Medical Offices:* Medical staff offices, support staff work spaces, and examination and procedure rooms used to provide outpatient medical treatment.
2. *Patient Services:*
   - Offices of other direct patient care providers (including, but not limited to, health educators, social workers, home health care workers, and physical therapists),
   - Rooms for diagnostics and treatment services (including, but not limited to, chemotherapy, clinical laboratory, EKG, EEG, imaging, infusion therapy, respiratory therapy, physical therapy, physical therapy and other outpatient treatment services), and
   - Retail services (including, but not limited to, health education materials, optical sales, and pharmacy).
3. *Administrative Offices:* Offices and related supports spaces for any administrative functions that support the operations of the various hospital, health plan, and medical group services.
4. *Support Services:* Areas that support all facility operations, as well as provide public and staff amenities (conference/meeting rooms, cafeteria/restaurants, and fitness facilities).
5. *Other:* Vacant space of the types listed above or including, but not limited to, common building space such as atriums, elevators, foyers, main corridors, outside rental space.
6. *Parking:* Above- or below-ground parking structures only.
7. Total floor area to be constructed. Of this total, 610,000 sf would be outpatient services space in Phase 1, and 22,700 sf would be residential space at Phase 1B/2139 O'Farrell Street.

Source: EIP Associates, based on information provided by Kaiser Foundation Hospitals and The Eden Group.

The proposed project would include outpatient services space, administrative space and accessory parking. The outpatient services buildings could provide any or all of the following services: ancillary administration, allergy, dermatology, internal medicine, neurology, obstetrics/gynecology, ophthalmology, optometry, orthopedics/podiatry, pediatrics, psychiatry, outpatient surgery, urology, health education, nutrition, and other related functions.

Phase 1 would include three components: Phase 1A/2290 Geary Boulevard would be the demolition of the existing buildings on the Eden Property and construction of a 105-ft.-high, 260,000-sq.-ft. outpatient services building with 532 parking spaces on this site.

Phase 1B would be the demolition of the existing 2139 O'Farrell Street building and the construction of Phase 1B/2139 O'Farrell Street, a 40-ft.-tall, 21-unit apartment building with 21 parking spaces at that site; upon completion of the new apartment building, the existing retail and 21-unit apartment building at 1401-17 Divisadero Street would be demolished.

Phase 1C/2295 Geary Boulevard would be the demolition of the existing 2200 O'Farrell Street building (and related facilities) and the adjacent 2190 O'Farrell parking garage and construction of a 105-ft., 350,000-sq.-ft. outpatient services building with 700 parking spaces on this site.

Upon completion of Phase 1 of the project as described below, Kaiser intends to vacate all leased space[2] in San Francisco, except the 16,500-sq.-ft. Occupational Medicine Center at 601 Van Ness Avenue and 3,500 sq. ft. of administrative services space at 425 Market Street. Kaiser would also vacate the French Campus and 2350 Geary Boulevard on the Geary Campus. For purposes of analysis in this EIR, Phase 1 is assumed to be complete by the year 2000.

Phase 2 would include construction of an 80-ft.-high, 127,000-sq.-ft. outpatient services building with 200 parking spaces at Phase 2A/1455 Divisadero Street (a site currently comprised of the 1401-17 Divisadero Street apartment building and the vacant lot at the southwest corner of Divisadero Street and Geary Boulevard). It would also involve demolition of the existing building at 350 St. Joseph's Avenue and construction of a 50-ft.-high, 97,000-sq.-ft. administrative services

building with 270 parking spaces as Phase 2B/New 350 St. Joseph's Avenue. For purposes of analysis in this EIR, Phase 2 is assumed to be complete by the year 2010.

This EIR analyzes Phase 1 of the Geary Campus, proposed for development by the year 2000, at a project-specific level of analysis. Phase 2, proposed to be constructed by the year 2010, is analyzed quantitatively at a similar level of detail. Phase 2 buildings would be designed to be compatible with proposed Phase 1 buildings. The Phase 2 designs shown in this EIR are one approach to the building program that would meet the floor area and height and bulk requirements of the sites. The architectural massing and detail of the two Phase 2 buildings would evolve before implementation of Phase 2. Proposed project phases are discussed in detail below.

Phase 1

Phase 1 would construct a total of 610,000 gross sq. ft. of outpatient services and administrative space and 22,700 sq. ft. of residential space by the year 2000 at the Geary Campus (see Table II.D.1, p. 59). The project also would result in vacating 75,000 sq. ft. of leased space including 14,500 sq. ft. on the Eden Property. Demolition would include 187,000 sq. ft. of patient services, residential space, and other commercial, office and retail space at the Eden Property, and at the Geary Campus and about 163,000 sq. ft. of structured parking space.[3] The net increase in total space with Phase 1 would be about 445,000 sq. ft. (see Table II.D.2). The number of off-street parking spaces on the Geary Campus would increase from about 430 to about 1,250 spaces. In addition, 668 existing parking spaces at the 2425 Geary Boulevard Hospital, 2350 Geary Boulevard and 2130 O'Farrell Street Garage would be retained. The French Campus would temporarily house outpatient services that were displaced during demolition and construction. After completion of Phase 1, Kaiser employment at the Geary Campus would be about 2,000, similar to citywide Kaiser levels in 1995. The new space would accommodate employees now in leased space, and provide adequate space for outpatient services.

TABLE II.D.2: KAISER GEARY CAMPUS PROJECT, PHASES 1 AND 2
SUMMARY OF CHANGES IN BUILDING FLOOR AREA

		Kaiser					Non-Kaiser			
Building Phase	**Gross Floor Area[1] (sf)**	**Medical Offices[2] (#/sf)**	**Patient Services (sf)**	**Admin. Offices[3]**	**Support Services[4] (sf)**	**Other[5] (sf)**	**Commercial & Retail (sf)**	**Offices (sf)**	**Dwelling Unit (#/sf)**	**Parking Spaces[6] (#/sf)**
Phase 1, by Year 2000										
1A	211,900(+)	150(-)[7]/193,400	30,900	13,800	5,800	1,600	-8,900	-18,900	-8/-5,800	524/261,400
1B	17,300(+)	-1/-1,200	0	-2,800	0	-1,400	0	0	21/22,700	8/(+)
Pink Building	-17,500	0/0	0	0	0	0	-6,000	0	-21/-11,500	0/0
1C	233,400	116/140,200	46,000	27,400	17,100	2,700	0	0	0/0	292/137,500
Total for Phase 1:	**445,100(+)**	**265(-)/332,400**	**76,900**	**38,400**	**22,900**	**2,900**	**-14,900**	**-18,900**	**-8/5,400**	**824/398,900(+)**
Phase 2, by Year 2010										
2A	127,000	70/80,000	20,000	5,000	22,000	0	0	0	0/0	200/99,200
2B	65,600	-6/-4,700	20,900	27,300	25,600	-3,500	0	0	0/0	270/128,400
Total For Phase 2:	**192,600**	**64/75,300**	**40,900**	**32,300**	**47,600**	**-3,500**	**0**	**0**	**0/0**	**470/227,600**
Total For Project:	**637,700**	**329(-)/407,700**	**117,800**	**70,700**	**70,500**	**-600**	**-14,900**	**-18,900**	**-8/5,400**	**1,294/626,500(+)**

Notes:
1. All gross floor area measurements exclude square footage from parking.
2. *Medical Offices:* The actual offices of the MDS themselves, support staff work spaces, and the various examination and procedure rooms used to provide outpatient medical treatment.
3. *Administrative Offices:* Offices and related support spaces for any administrative functions that support the operations of the various hospital, health plan, and medical group services.
4. *Support Services:* Areas that support all facility operations, as well as provide public and staff amenities (conference/meeting rooms, cafeteria/restaurants, and fitness facilities).
5. *Other:* Vacant space of the types listed above or including, but not limited to, common building space such as atriums, elevators, foyers, main corridors, outside rental space.
6. *Parking:* Above or below ground parking structures only.
7. Symbols in parentheses indicate a positive (+) or negative (-) correction to be made when further information has been obtained.

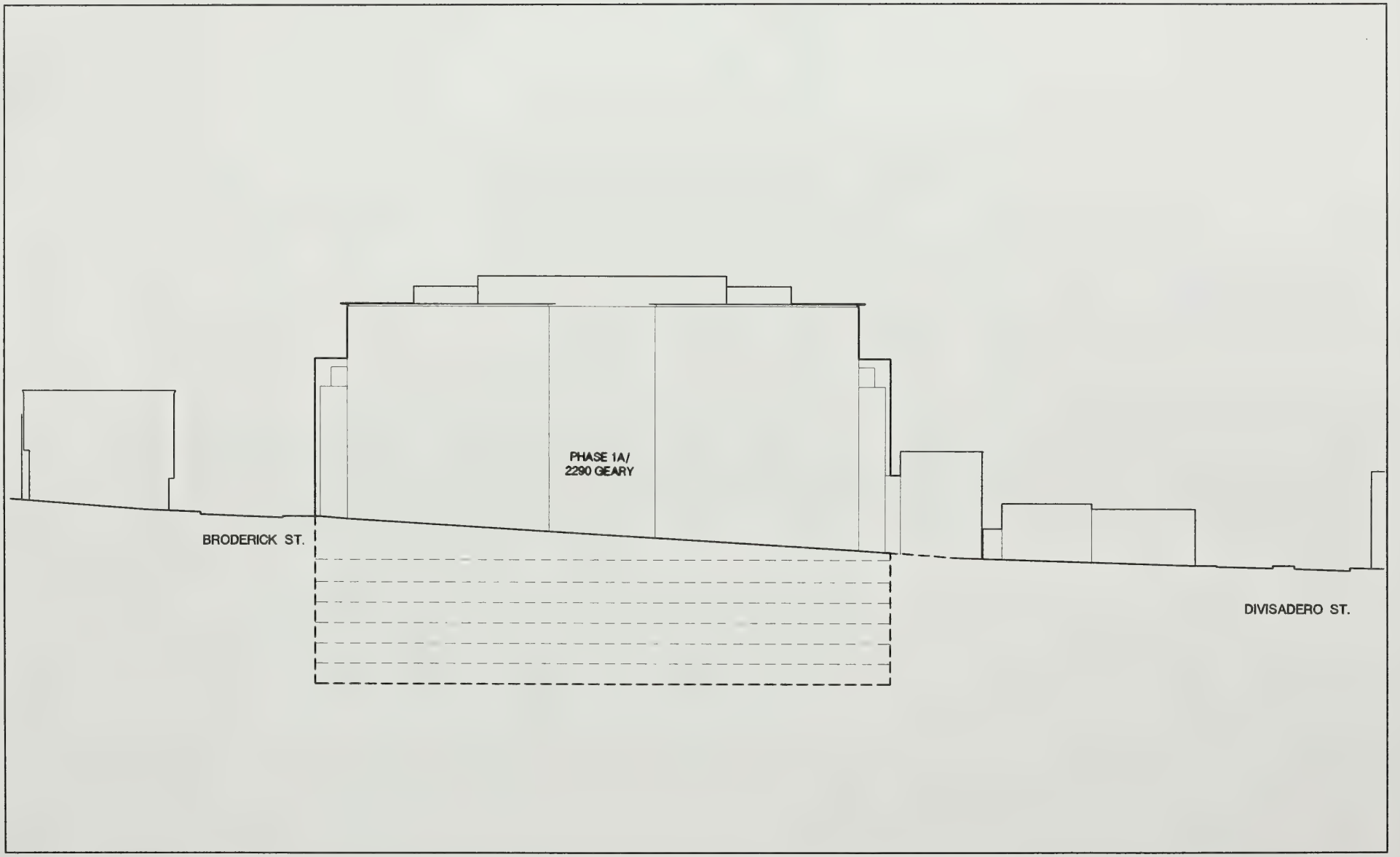
Source: EIP Associates, based on information provided by Kaiser Foundation and The Eden Group.

Phase 1A/2290 Geary Boulevard (The Eden Property)

Phase 1A would demolish the 11 existing buildings on the ten lots comprising the Eden Property, and construct a 105-ft.-tall, eight-story building consisting of approximately 260,000 sq. ft. of outpatient services space and ground-floor retail space, housing 150 health care providers, with 263,250 sq. ft. of underground parking for 532 cars on seven levels. About 70,000 cubic yards of material would be excavated and removed from the site in order to construct the underground parking levels and the foundation of the building (see Figures II.D.3 - II.D.5, pp. 64 - 66).

The 2290 Geary Boulevard ground floor would include the main lobby from Geary Boulevard, and about 28,900 sq. ft. of space, which could include restaurant, other retail, pharmacy, or member services uses for Kaiser patients and staff with separate street-level entrances. Access to below-ground parking would be from Geary Boulevard. A two-bay truck loading area would be accessible from Garden Street (see Figure II.D.4, p. 65). The seven upper floors would house outpatient services (see Figure II.D.5, p. 66). The building would be built to sidewalk lines on Geary, Broderick, and Garden. The parking levels beginning with the first below-grade parking level at the eastern property line (the second sub-basement level) would be held back 5 ft. from the property line to ensure the structural integrity of the 2330 Geary Boulevard residential structure (see Figure II.D.6, p. 67). The ground-floor lobby level and the second floor would be cantilevered to cover the entire site. Above the third level, the building would be set back 5 ft. from the eastern property line.

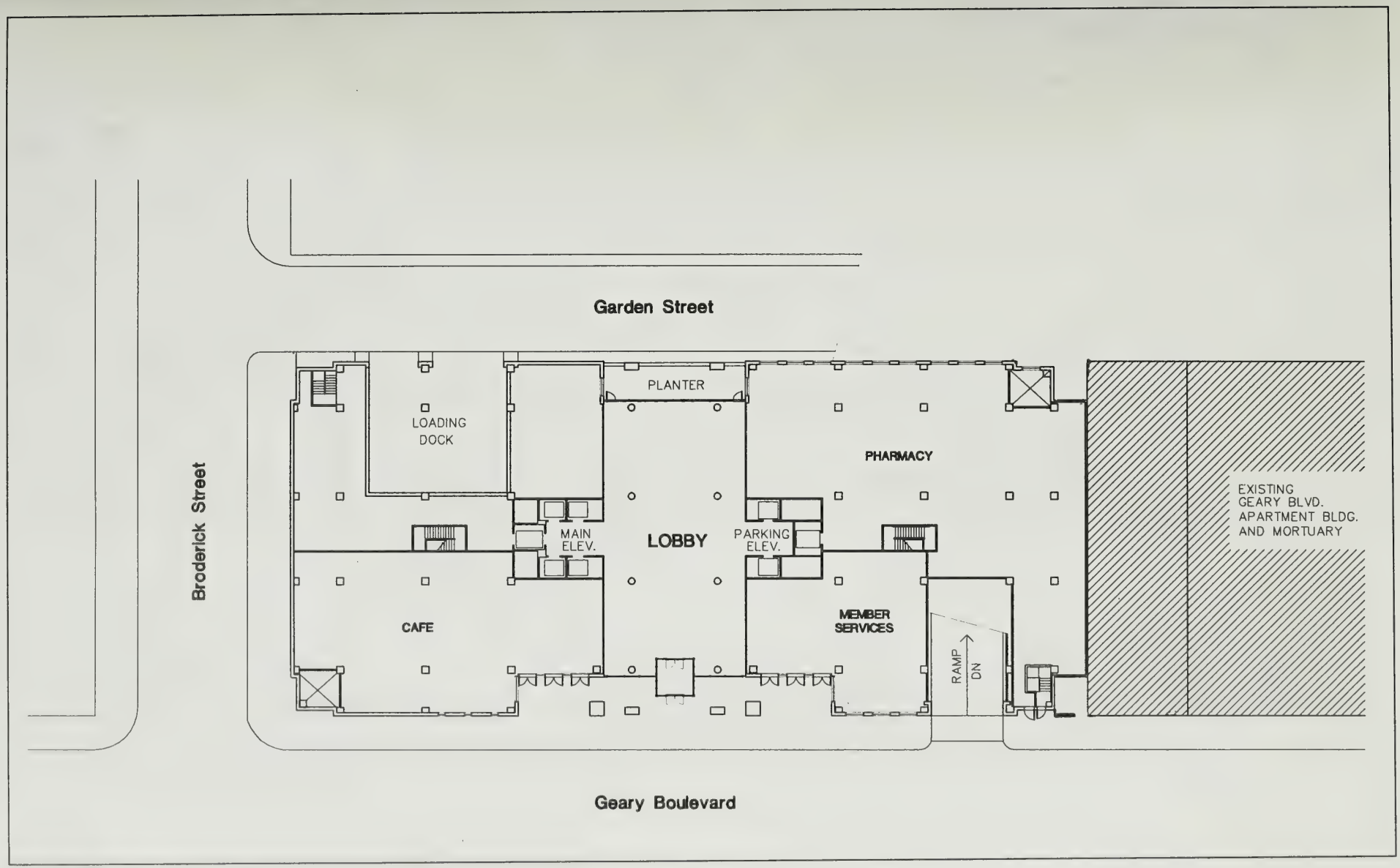
The north and south facades would consist of three elements. A central glass-curtain wall section would rise above the lobby, set back about 15 ft. from the Geary sidewalk. The east and west portion of the building element would be stucco facade with rows of individual windows (see Figure II.D.7, p. 68). At the sixth floor, each corner would have a notched setback. The seventh and eighth floors would be set back on the east and west sides (see Figure II.D.7, p. 68, and Figure II.D.8, p. 69). The top of the roof would rise to 105 ft., as measured from the midpoint of the site above Geary Boulevard. (The site rises from east to west.) Two 16-ft. mechanical penthouses would rise above the roof.



SOURCE: Anshen & Allen Architects

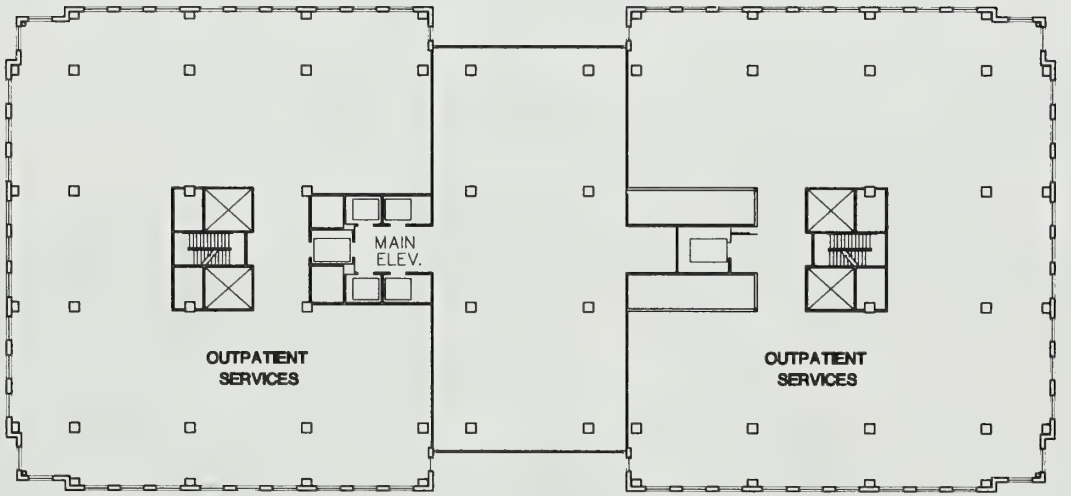
SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.3
Geary Campus Project:
North of Geary Boulevard Cross-section



SOURCE: Anshen & Allen Architects

Figure II.D.4
Phase 1A/2290 Geary Boulevard
Ground-Level Plan



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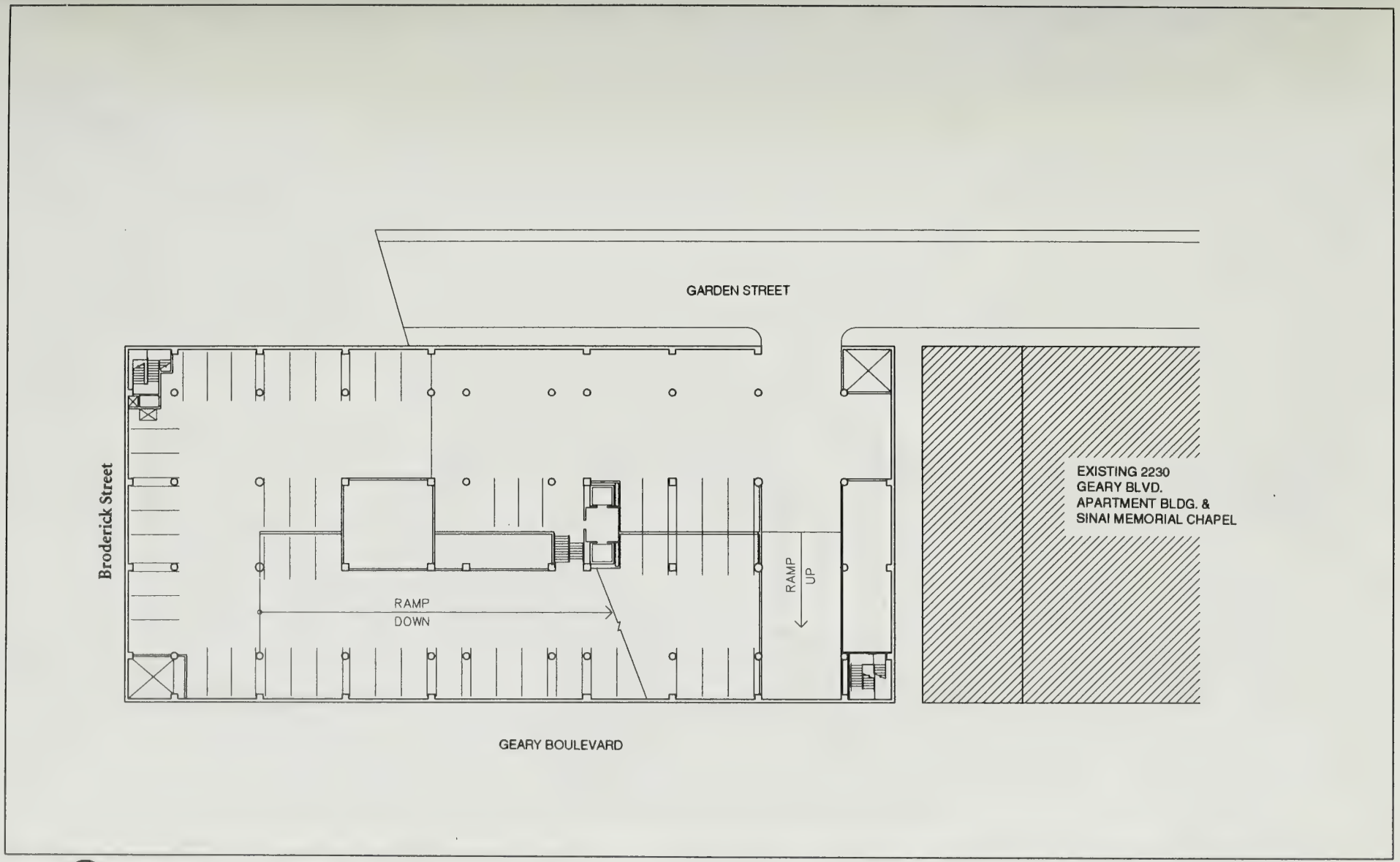
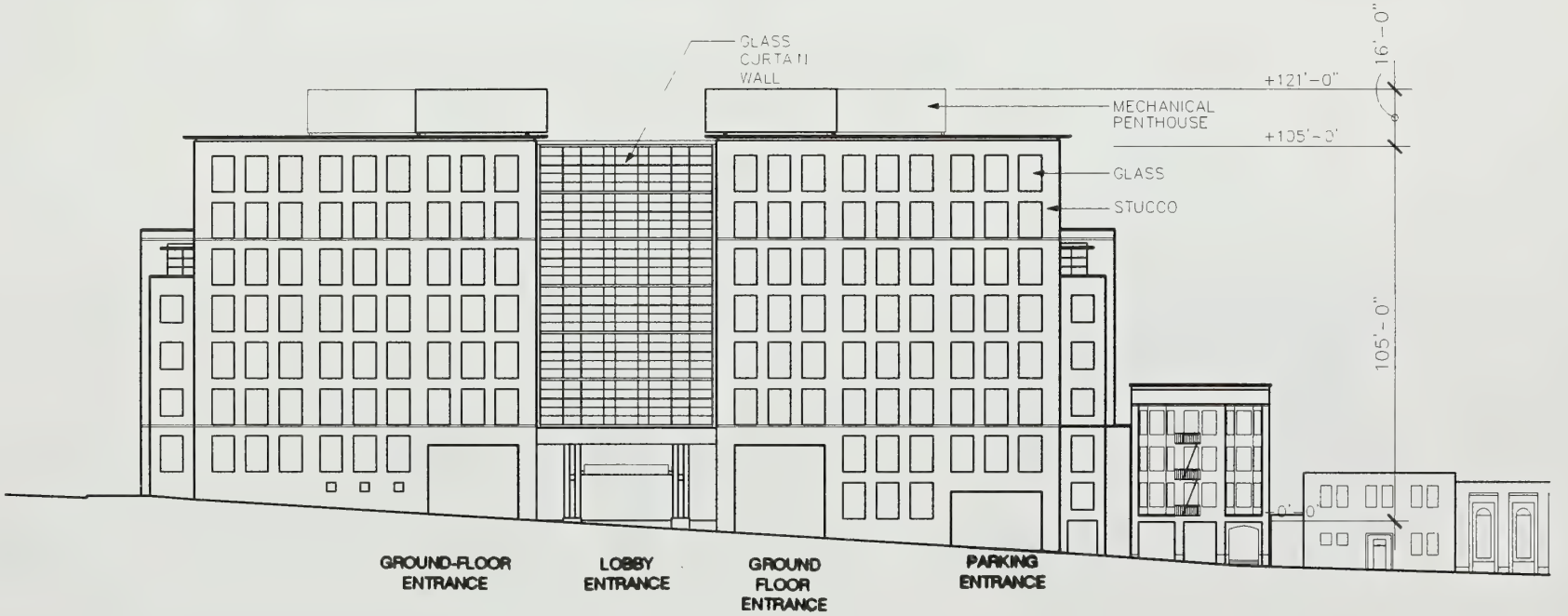
SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT
Figure II.D.5
Phase 1A/2290 Geary Boulevard
Typical Upper-Level Plan



SOURCE: Anshen & Allen Architects

Figure II.D.6
Phase 1A/2290 Geary Boulevard
First Below-Grade Parking Plan



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SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.7
Phase 1A\2290 Geary Boulevard
Geary Boulevard Elevation

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SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.8
Phase 1A\2290 Geary Boulevard
Broderick Street Elevation

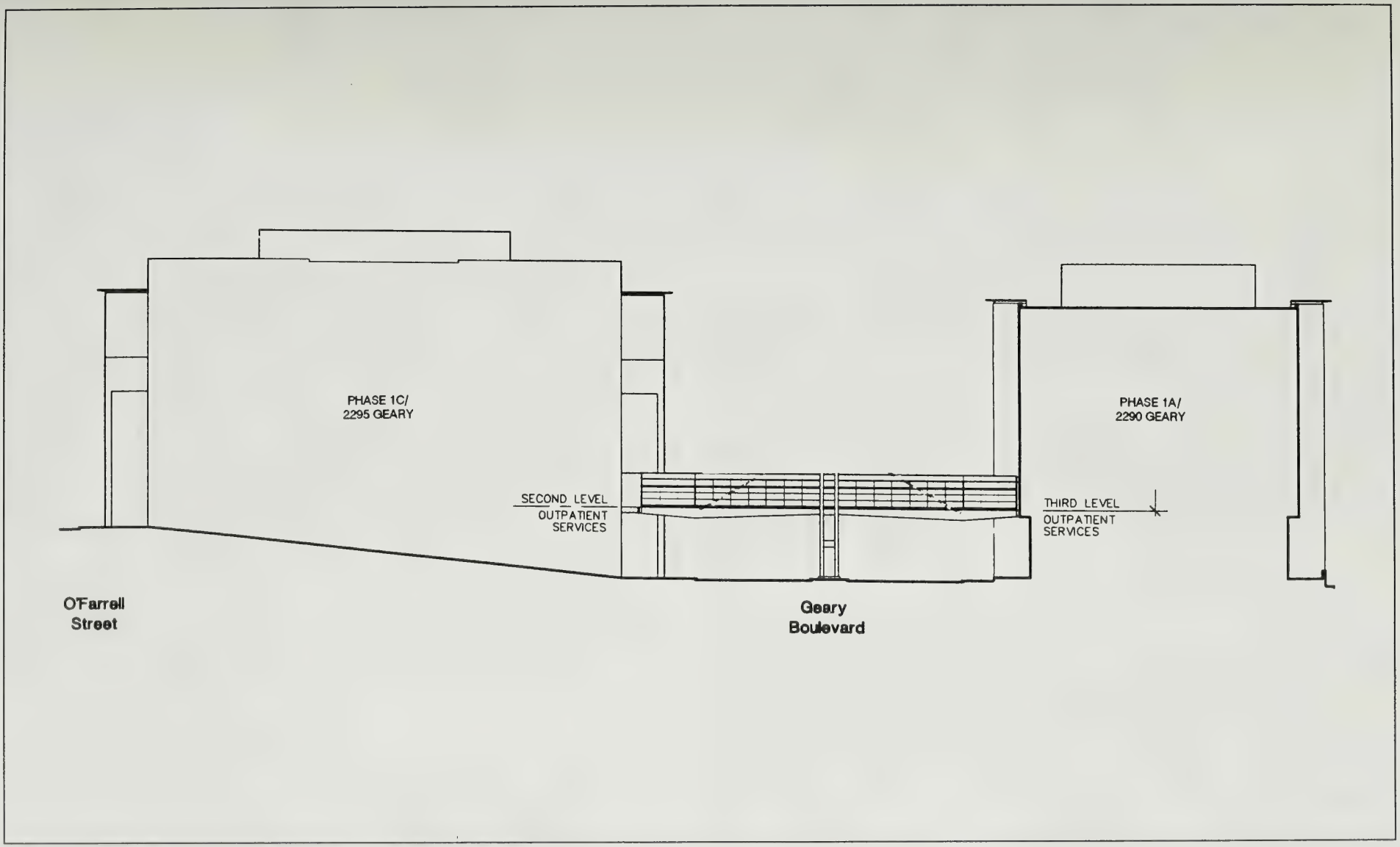
Pedestrian Bridge Variant

As a variant of the project, the project sponsor is considering constructing a pedestrian bridge across Geary Boulevard between the third floor of Phase 1A/2290 Geary Boulevard and the second floor of Phase 1C/2295 Geary Boulevard building (see Figure II.D.1, p. 57, and Figure II.D.9). The bridge would accommodate safe movement of staff, patients, mobility-impaired persons, and equipment and files across Geary Boulevard. The bridge would be suspended about 30 ft. above Geary Boulevard to avoid conflicts with any future light-rail station at this location. Construction of the bridge would involve a minor amount of ground leveling for the foundation. The bridge variant is discussed in IV.B. Urban Design and Visual Quality, pp. 278 - 282, V.D. Transportation and Circulation, p. 493, and IV.G. Transportation and Circulation, p. 374 and pp. 378 - 379.

Phase 1B/2139 O'Farrell Street

Phase 1B would demolish the existing 2139 O'Farrell Street building containing ancillary services, and construct a 22,700-sq.-ft., three-story 21-unit residential structure, with 21 off-street parking spaces (see Figures II.D.10 - II.D.11, pp. 72 - 73). Minor ground leveling would be necessary for construction of the building's foundation. Upon construction of the housing units at 2139 O'Farrell Street and relocation of residents from 1401-17 Divisadero Street in accordance with state redevelopment law, the existing 21-unit apartment building at 1401-17 Divisadero Street would be demolished. For the purposes of analysis in the EIR, this demolition is assumed to occur in Phase 1B, but it could occur at the end of Phase 1.

The apartments would have a U-shaped site plan, around an interior courtyard, with the pedestrian and parking entrance on O'Farrell Street (see Figure II.D.10, p. 72). There would be 18 one-bedroom and 3 two-bedroom units. The exterior material would be stucco with metal architectural details.



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.9
Illustrative Pedestrian Bridge Variant
Divisadero Street Elevation

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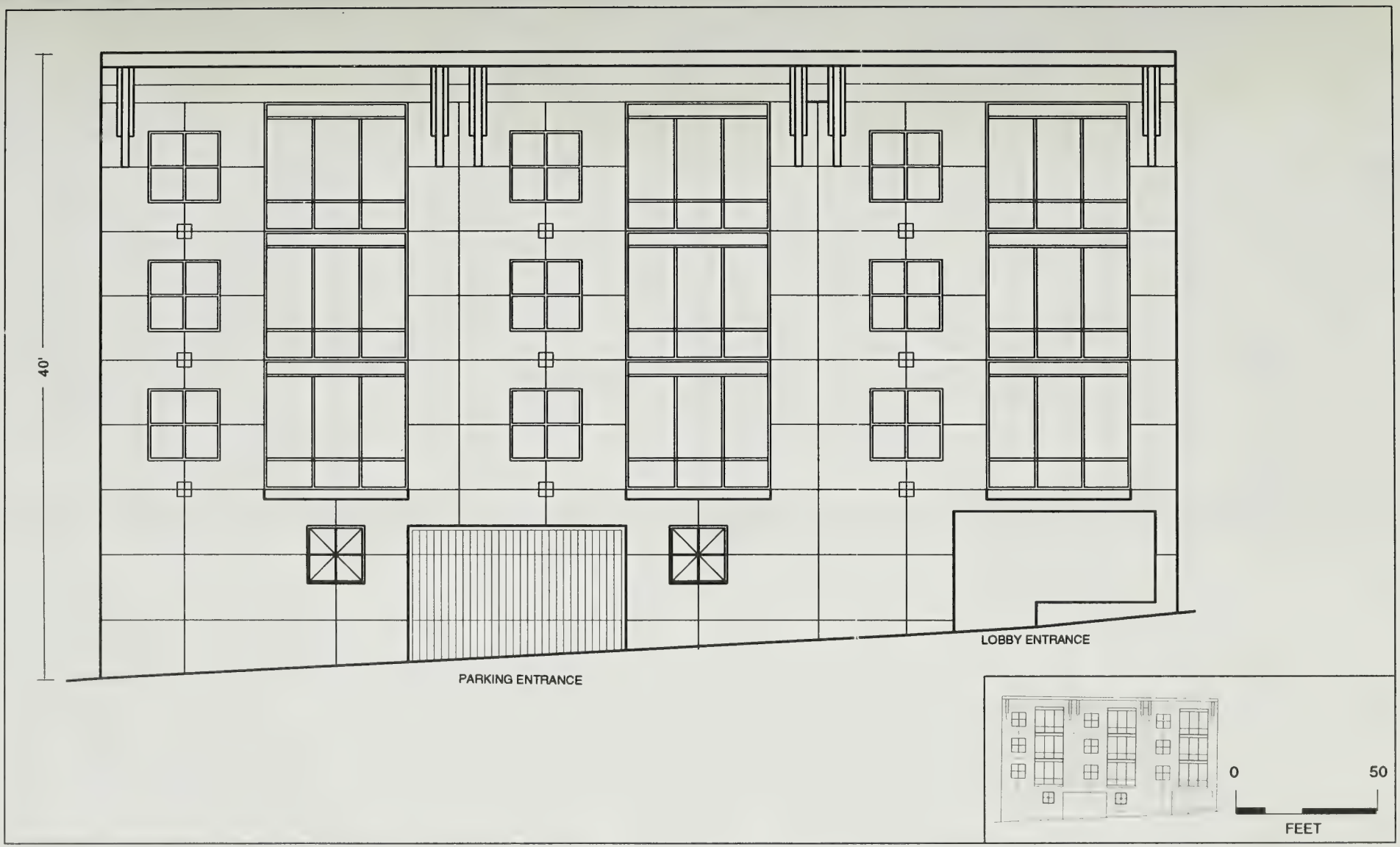
SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.10

Phase 1B/2139 O'Farrell Street

Typical Upper-Level Plan and Ground-Level Parking



SOURCE: Kwan Henmi Architecture/Planning, Inc.
NOTE: Scale of inset is same as scale of elevations of other Project Phases.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.11
Phase 1B/2139 O'Farrell Street
O'Farrell Street Elevation (Apartments)

Phase 1C/2295 Geary Boulevard (2190 O'Farrell/2200 O'Farrell Site)

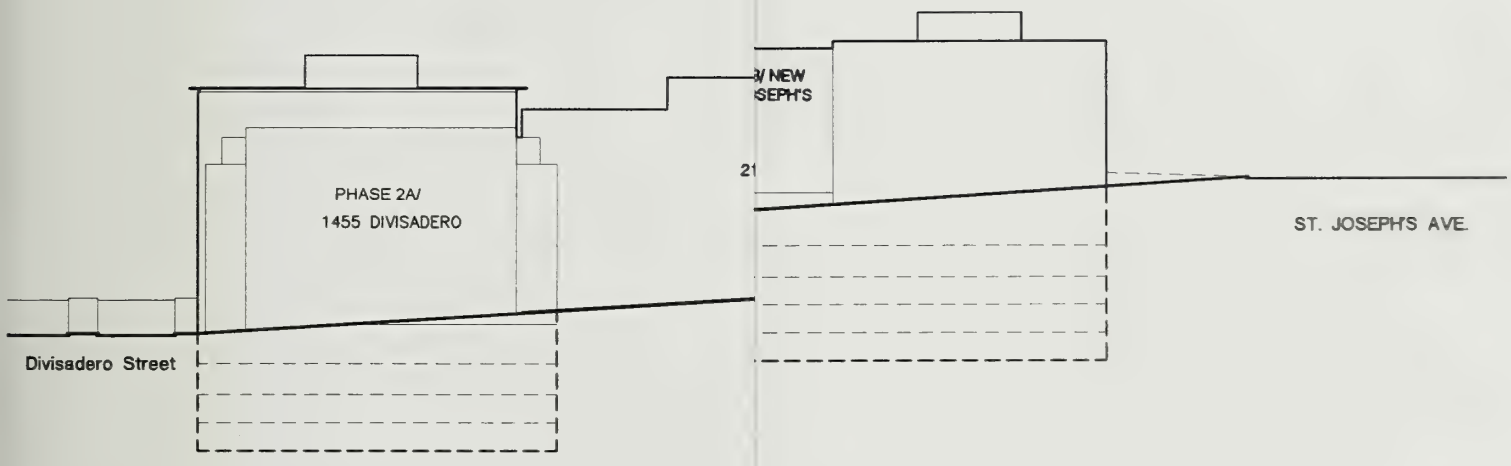
After completion of Phase 1A/2290 Geary Boulevard, employees from 2200 O'Farrell Street would relocate to 2290 Geary. Phase 1C would then demolish the six-story, 408-space Kaiser parking garage at 2190 O'Farrell Street and the 2200 O'Farrell Street outpatient services building, and remove the one-story modular Annex Building and trailers on the parking lot facing Geary Boulevard. After demolition of these existing buildings, a 105-ft.-tall, eight-story building housing 288 providers would be constructed. It would contain approximately 350,000 sq. ft. of outpatient services space and 300,500 sq. ft. of underground parking for 700 cars on six levels (see Figures II.D.12 - II.D.17, pp. 75 - 80) as Phase 1C/2295 Geary Boulevard. About 145,000 cubic yards of material would be excavated and removed from the site in order to construct the six-level underground parking and the foundation of the building.

The 2295 Geary Boulevard ground floor would include a plaza and landscaped pool between Geary Boulevard and O'Farrell Street, as well as lobby and outpatient services spaces. Ramps to subsurface parking would be accessible from Geary Boulevard (see Figure II.D.13, p. 76).

The plaza would be open to the second floor; floors three through eight would have an H-shaped plan (see Figure II.D.14, p. 77). The east and west elements of the building would be built to the Geary and O'Farrell sidewalk lines. However, the east facade would be separated by about 20 ft. from the existing 2130 O'Farrell Street parking structure, and the west facade would be separated by about 30 ft. from the existing 350 St. Joseph's Avenue building.

The central portion of the building above the plaza would have glass curtain walls; the east and west wings would have stucco surfaces, with rows of individual windows (see Figure II.D.16 and II.D.17, pp. 79 - 80). At the fifth floor, each corner would have a notched setback. The sixth through eighth floors would be set back on the east and west sides, with an additional setback on the eighth floor from the north and south sides.

The top of the roof would rise to about 105 ft., as measured from the midpoint of the site. (The site rises from east to west.) Two 16-ft.-high mechanical penthouses would rise above the roof of



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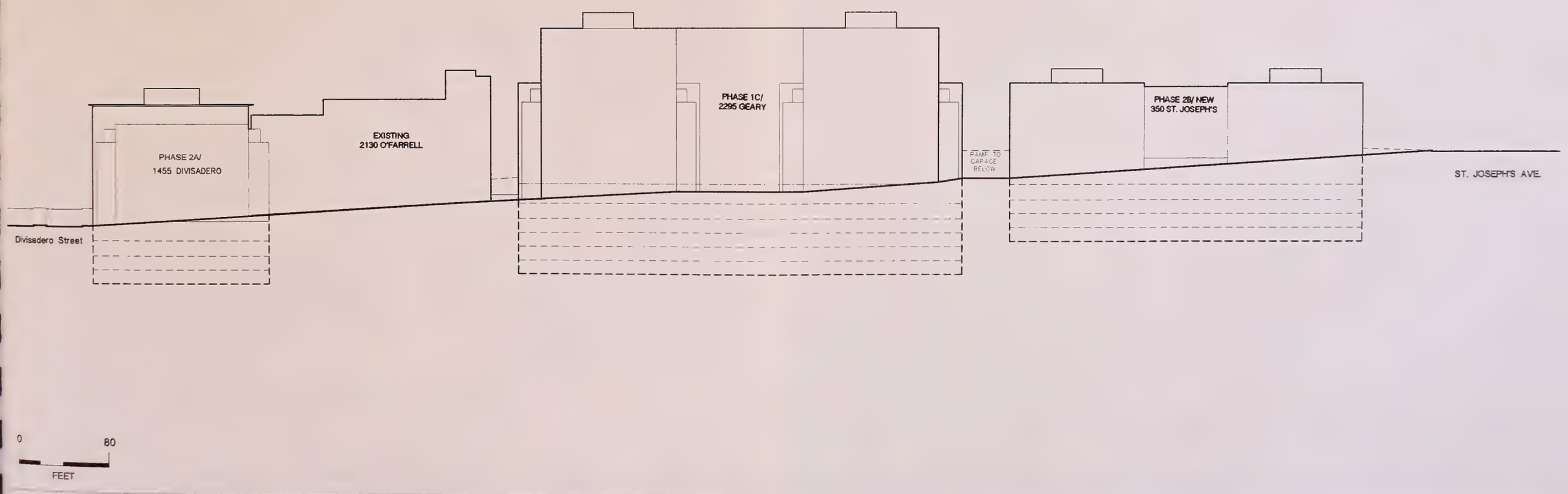
SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

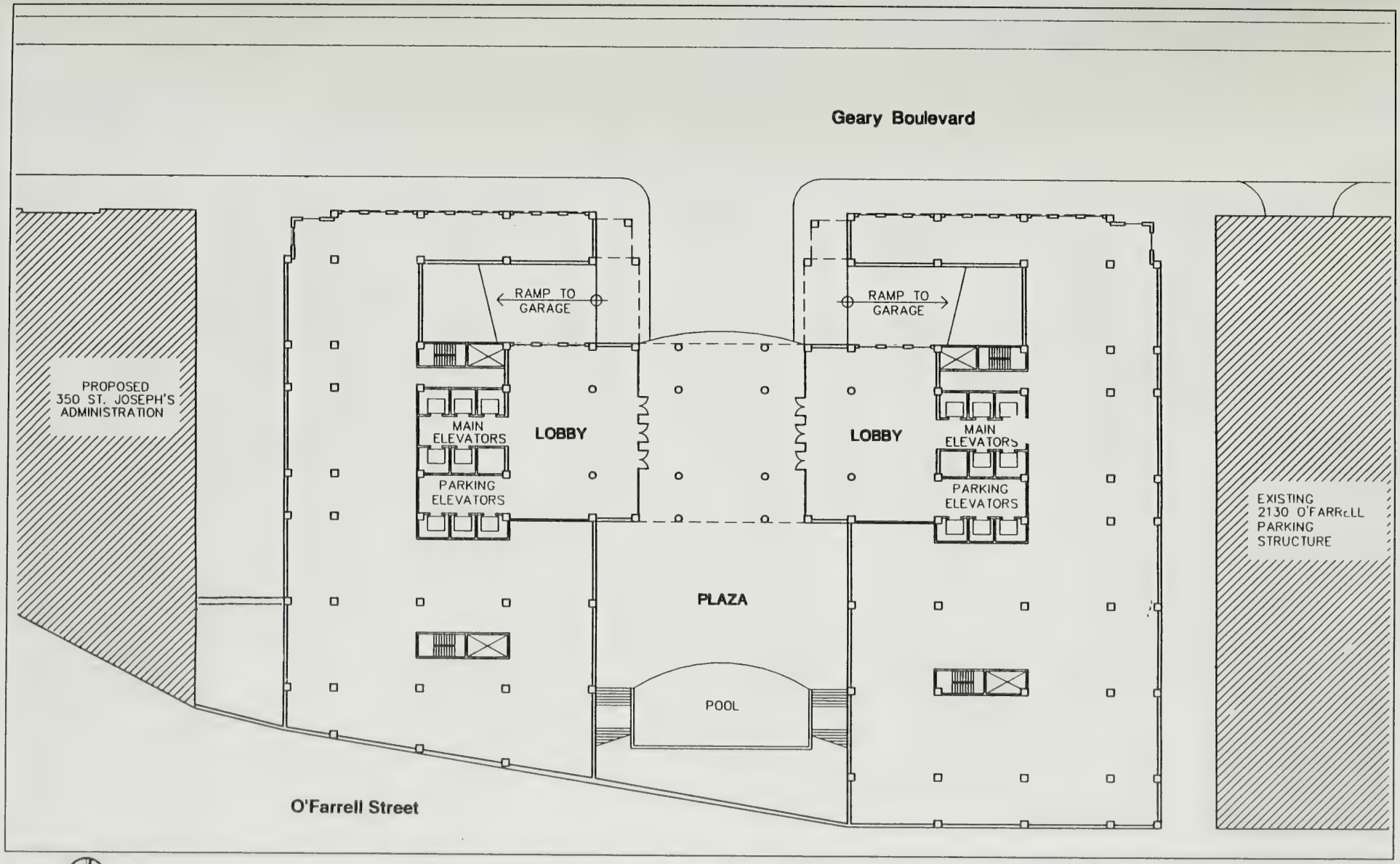
Figure II.D.12
Geary Campus Project:
South of Geary Boulevard Cross-section



SOURCE: Anshen & Allen Architects

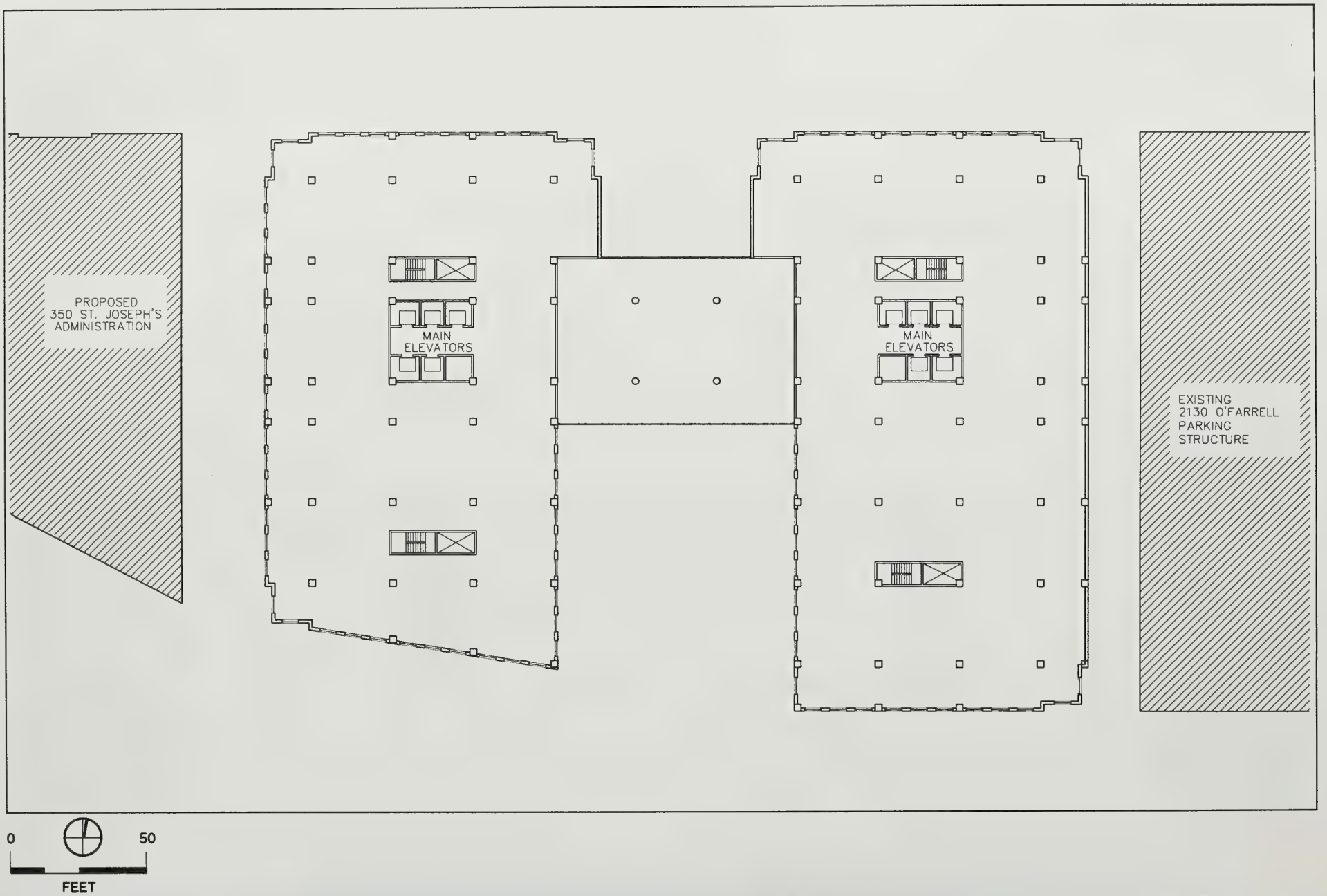
SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.12
Geary Campus Project:
South of Geary Boulevard Cross-section



SOURCE: Anshen & Allen Architects

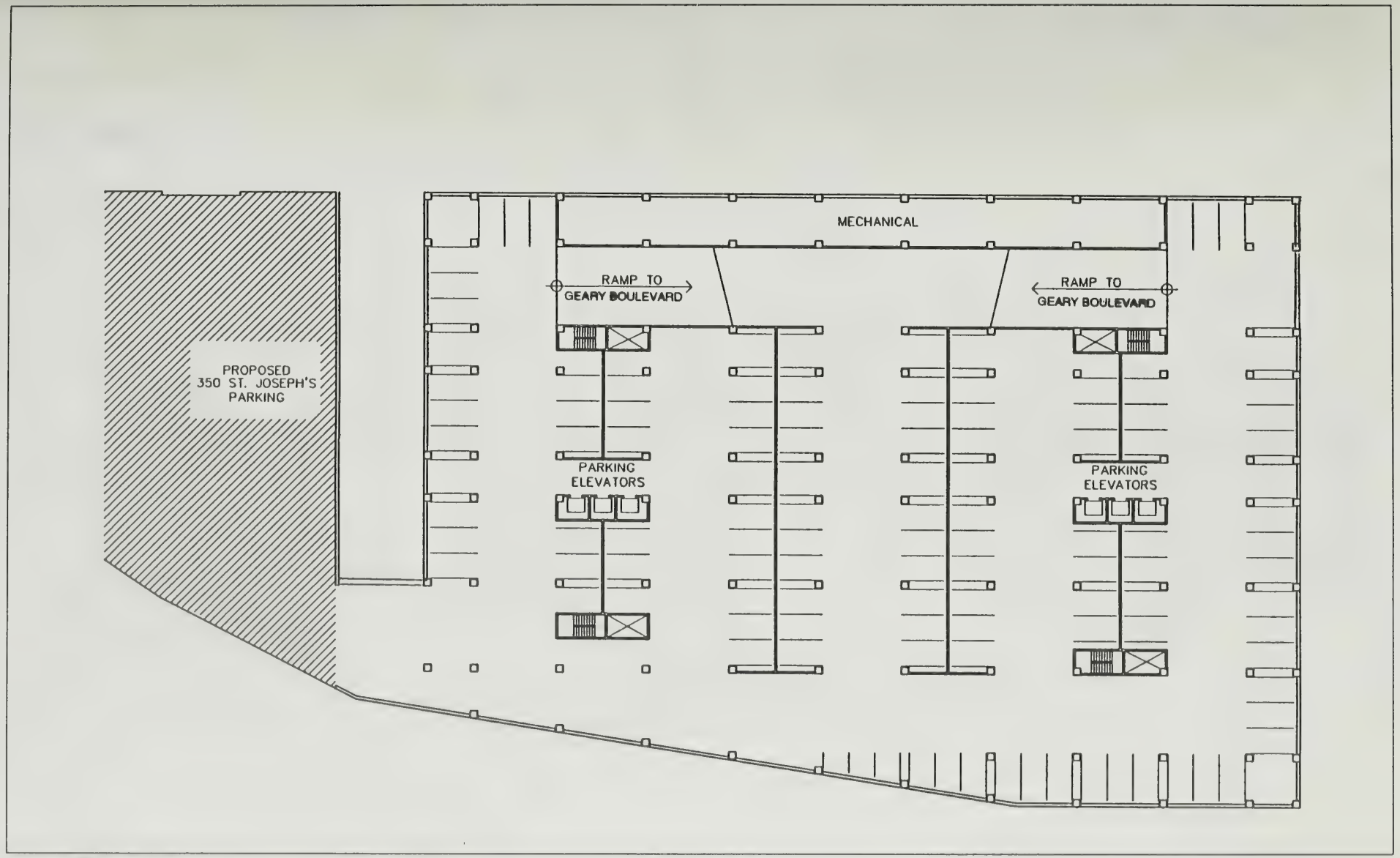
Figure II.D.13
Phase 1C/2295 Geary Boulevard
Ground-Level Plan



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

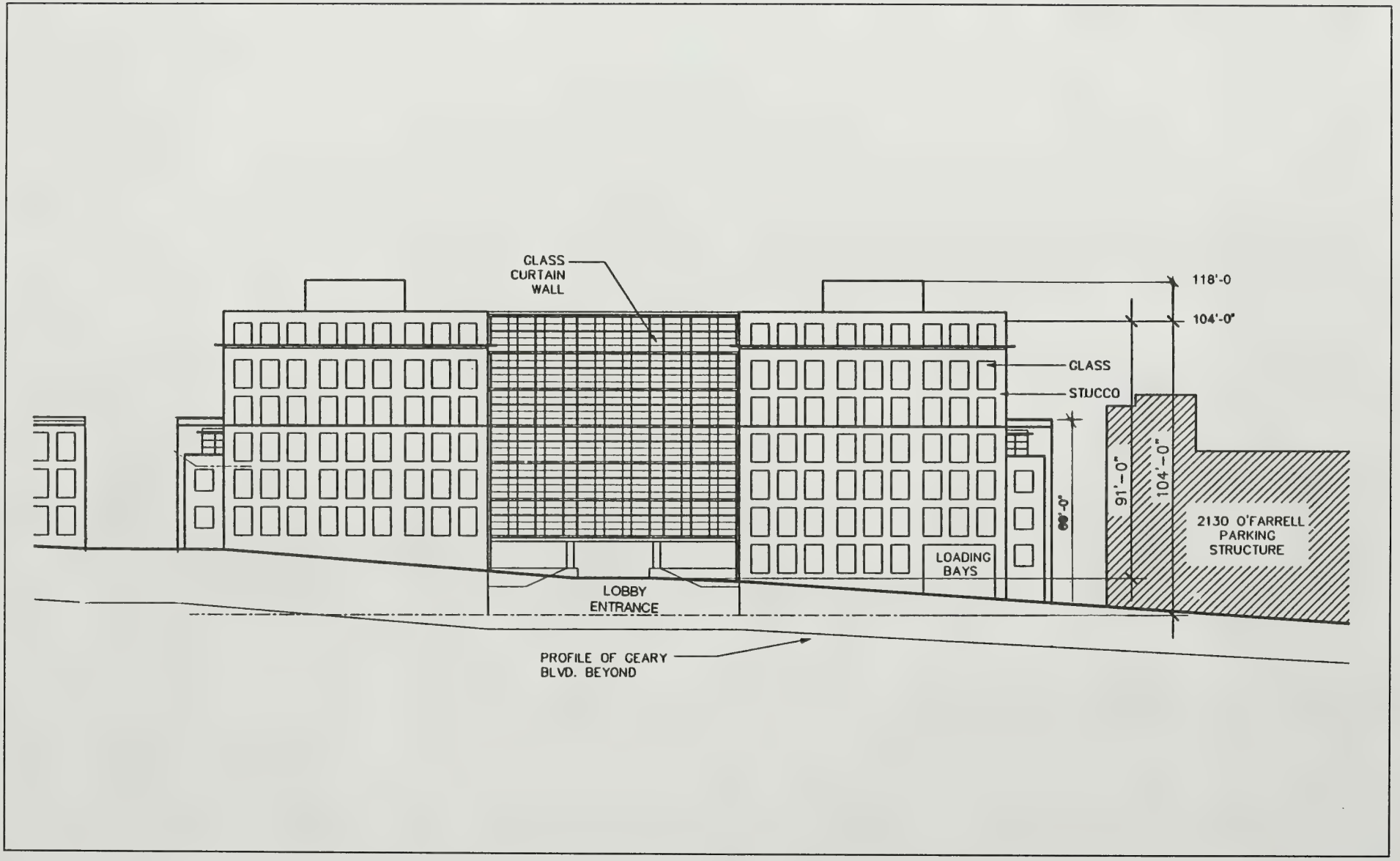
Figure II.D.14
Phase 1C/2295 Geary Boulevard
Typical Upper-Level Plan



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GLARY CAMPUS PROJECT

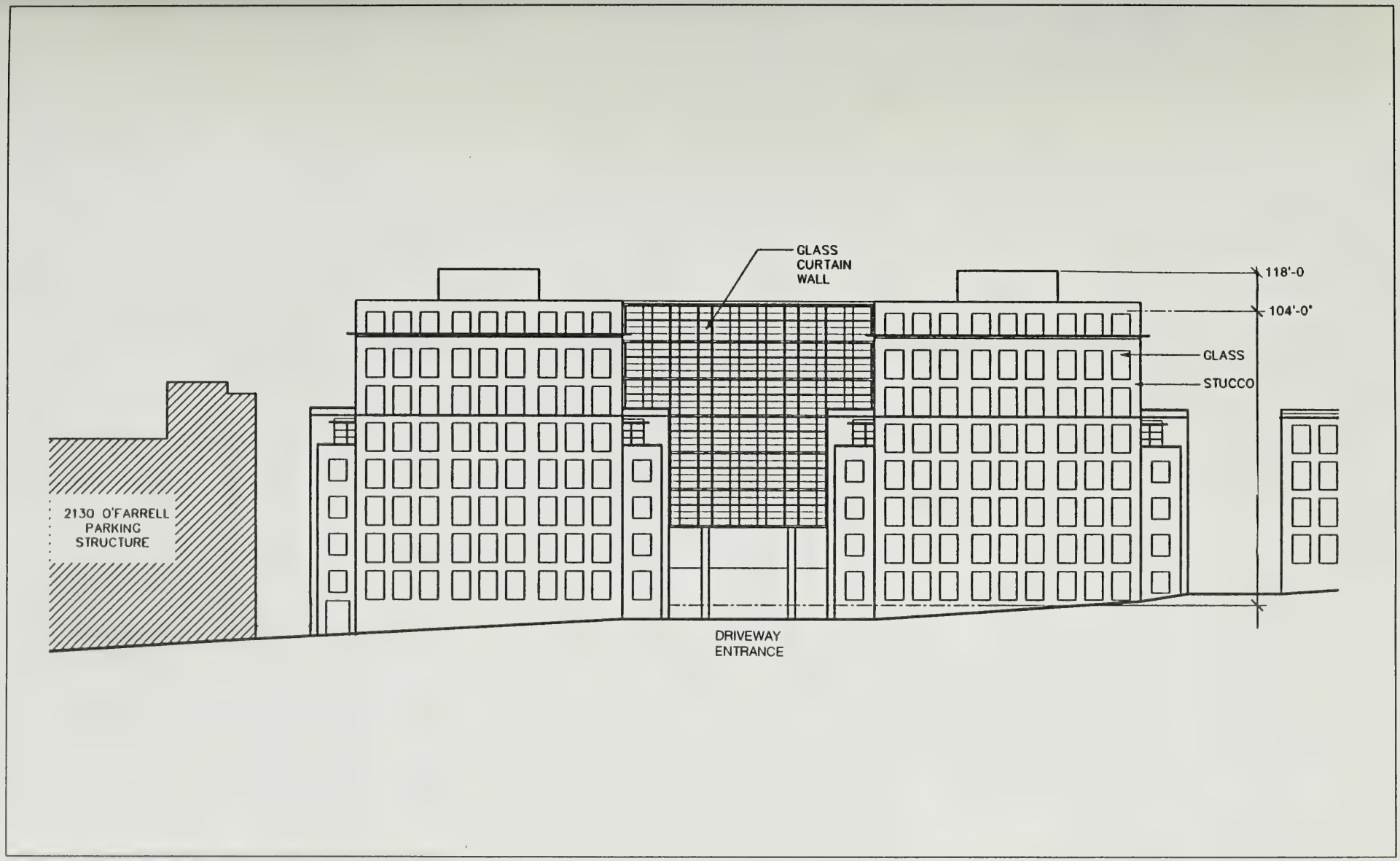
Figure II.D.15
Phase 1C/2295 Geary Boulevard
First Below-Grade Parking Plan



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.16
Phase 1C/2295 Geary Boulevard
O'Farrell Street Elevation



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SOURCE: Anshen & Allen Architects

Figure II.D.17
Phase 1C/2295 Geary Boulevard
Geary Boulevard Elevation

the east and west wings of the building (see Figure II.D.12, p. 75). The mechanical penthouses would be 16 ft. higher than the roof.

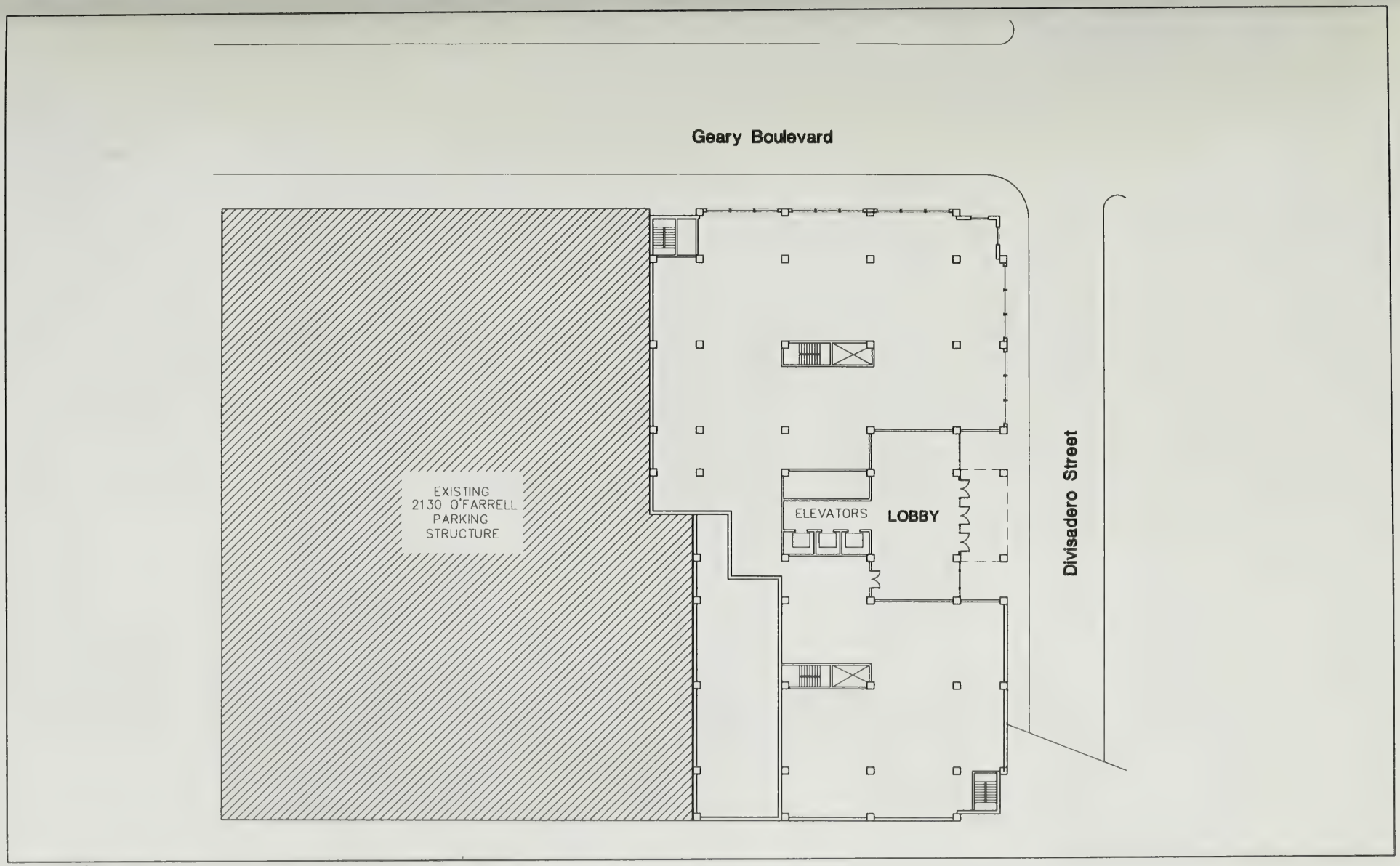
The massing concept, materials and architectural detailing of the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings are intended to be similar in character.

Phase 2

Based on projected growth for outpatient services, additional space needs by the year 2010 would be met in Phase 2. Phase 2 would include construction of an 80-ft.-tall, 127,000-sq.-ft. outpatient services building at Phase 2A/1455 Divisadero Street, and a 50-ft.-tall, 97,000-sq.-ft. ancillary and general administrative building at Phase 2B/New 350 St. Joseph's Avenue. If Phase 2 were implemented, the Geary Campus would have a total of 834,000 sq. ft. of new construction for outpatient services space, and off-street parking for 2,390 cars, a net increase of about 637,700 sq. ft. of Kaiser outpatient space, and 1,290 parking spaces from 1995 (see Table II.D.2, p. 62). After completion of Phase 2, Kaiser employment at the Geary Campus would be about 2,300, compared to 2,000 in 1995.

Phase 2A/1455 Divisadero Street (vacant Texaco/1401-17 Divisadero Site)

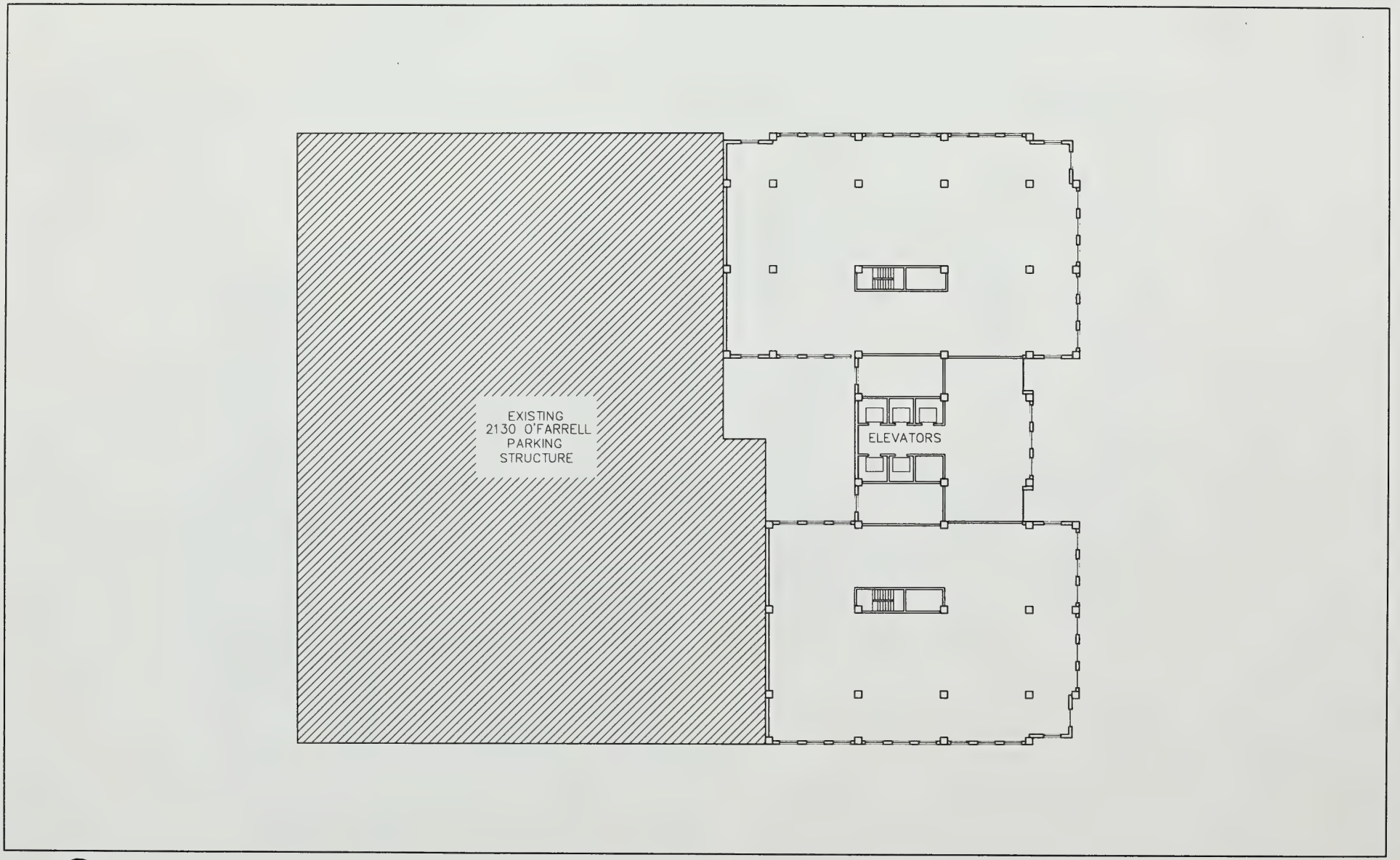
Phase 2A would be an 80-ft.-tall, six-story building with approximately 127,000 sq. ft. of outpatient services space for about 100 health care providers and approximately 99,200 sq. ft. of underground parking for 200 cars on four levels at 1455 Divisadero Street (see Figures II.D.18 - II.D.23, pp. 82 - 87). About 40,000 cubic yards of material would be excavated and removed from the site in order to construct the four underground parking levels and the foundation of the building (see Figure II.D.12, p. 75).



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.18
Phase 2A/1455 Divisadero Street
Ground-Level Plan



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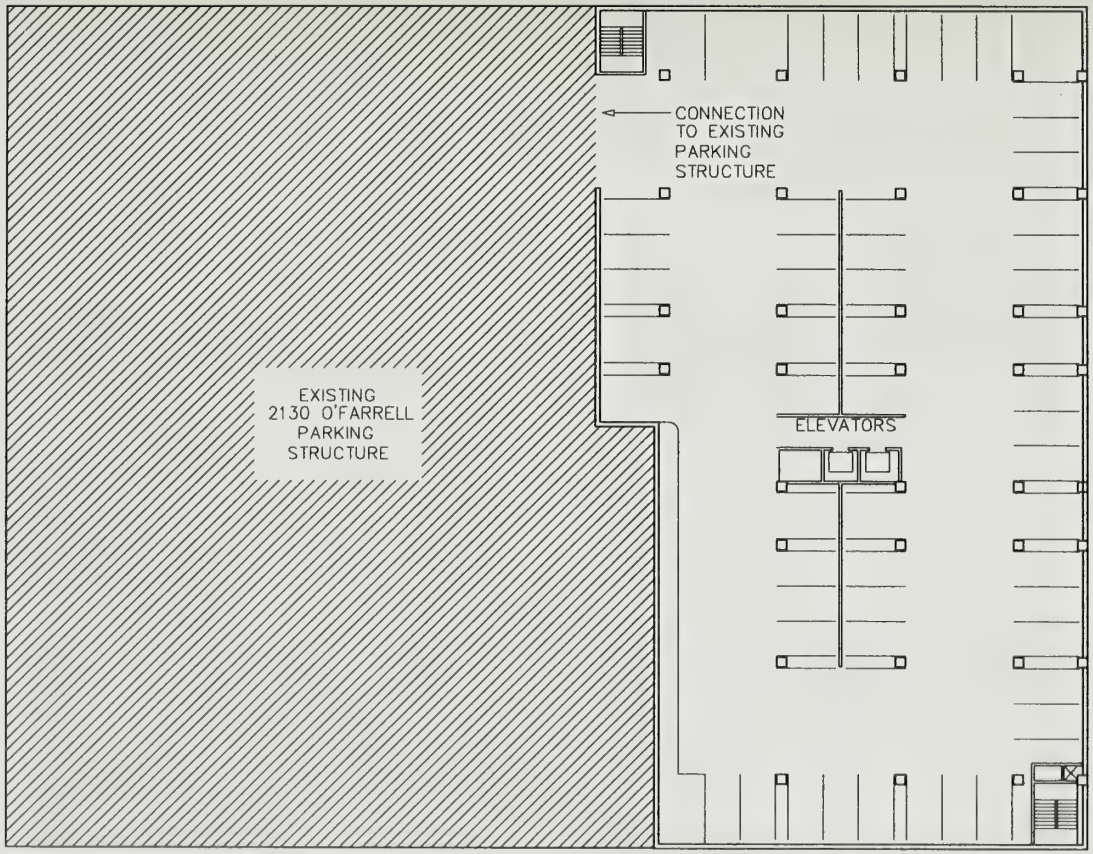
SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.19
Phase 2A/1455 Divisadero Street
Typical Upper-Level Plan



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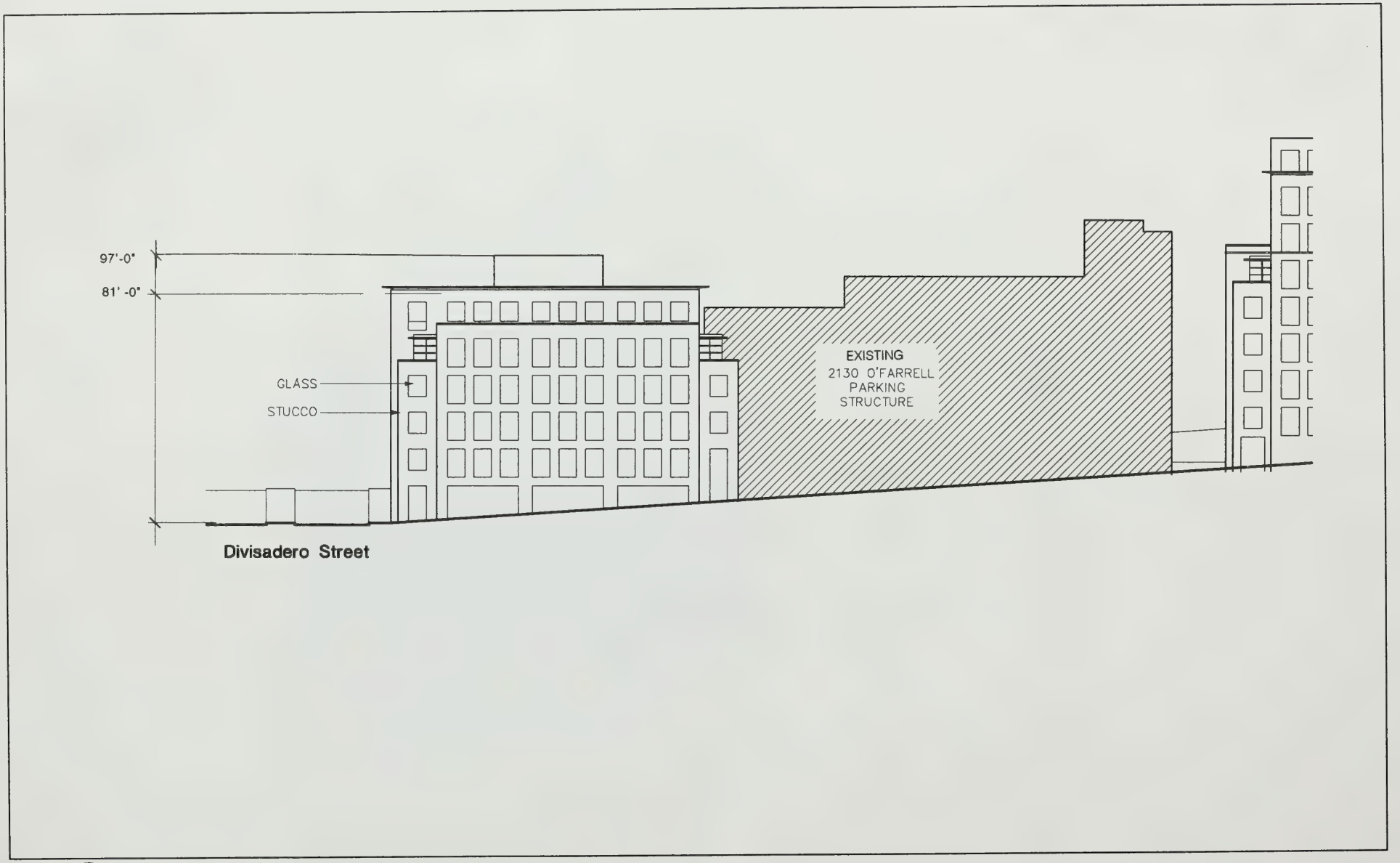
SOURCE: Anshen & Allen Architects

Figure II.D.20
Phase 2A/1455 Divisadero Street
Typical Below-Grade Parking Plan



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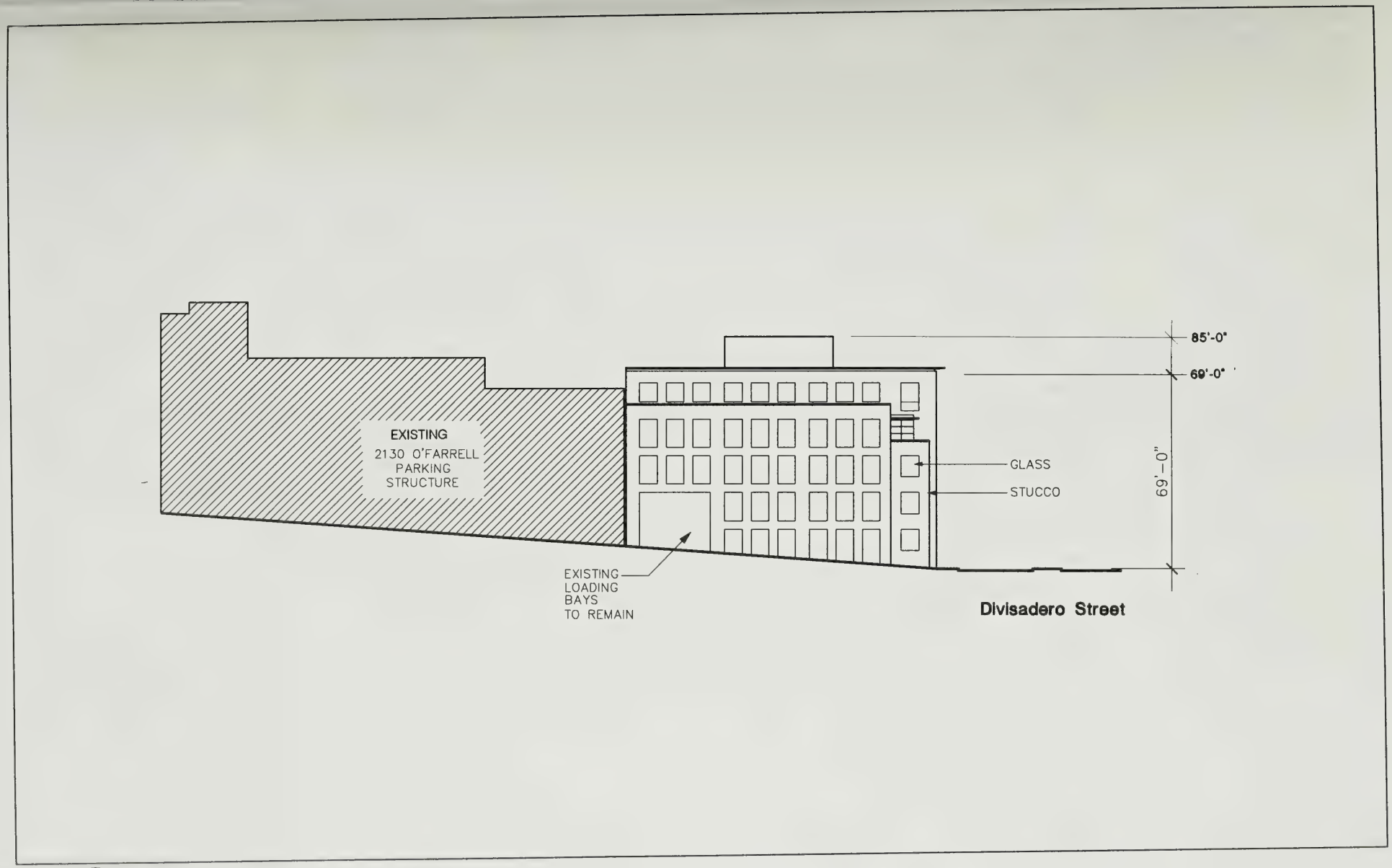
SOURCE: Anshen & Allen Architects

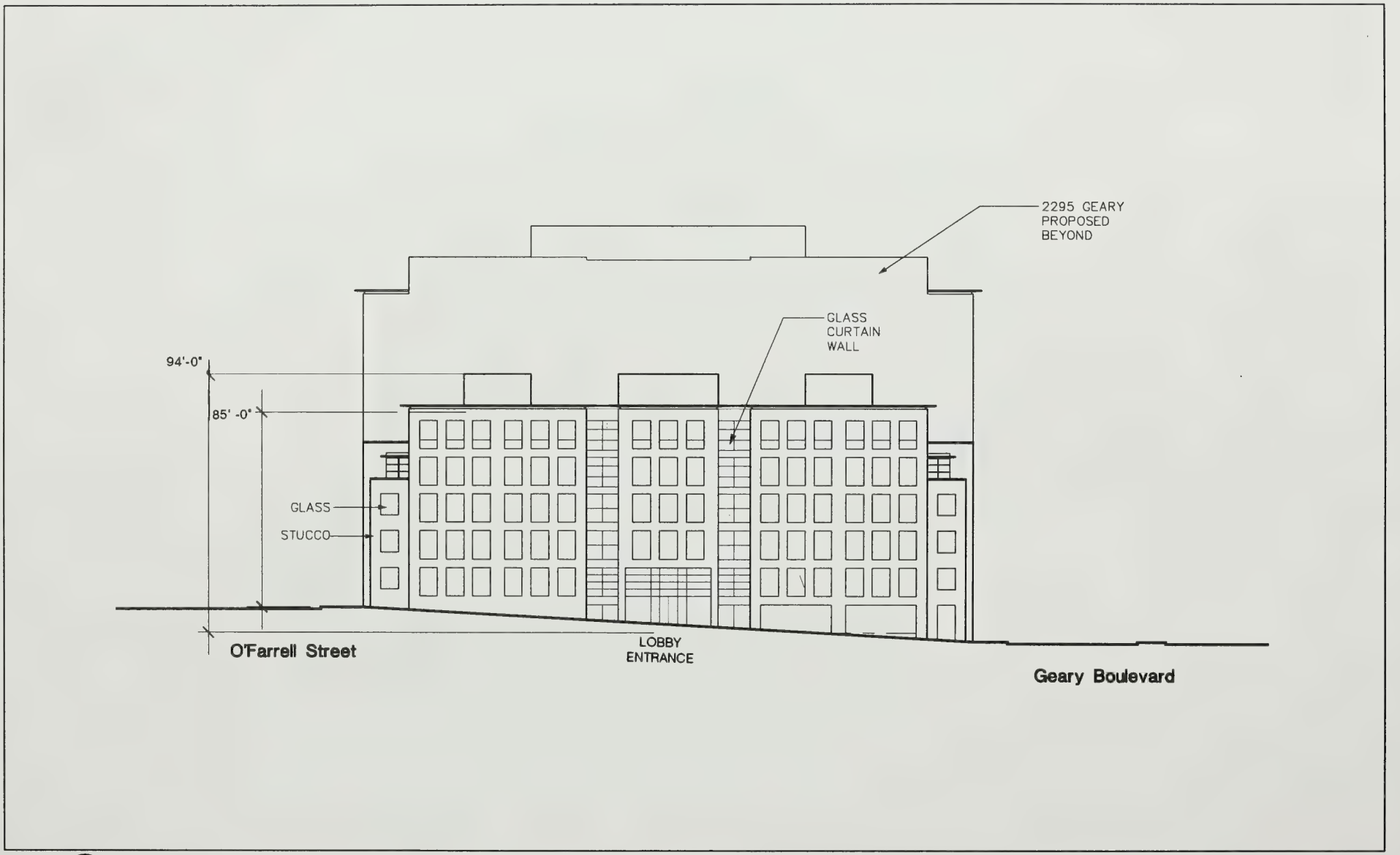
SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.21
Phase 2A/1455 Divisadero Street
Geary Boulevard Elevation



SOURCE: Anshen & Allen Architects

Figure II.D.22
Phase 2A/1455 Divisadero Street
O'Farrell Street Elevation



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.23
Phase 2A/1455 Divisadero Street
Divisadero Street Elevation

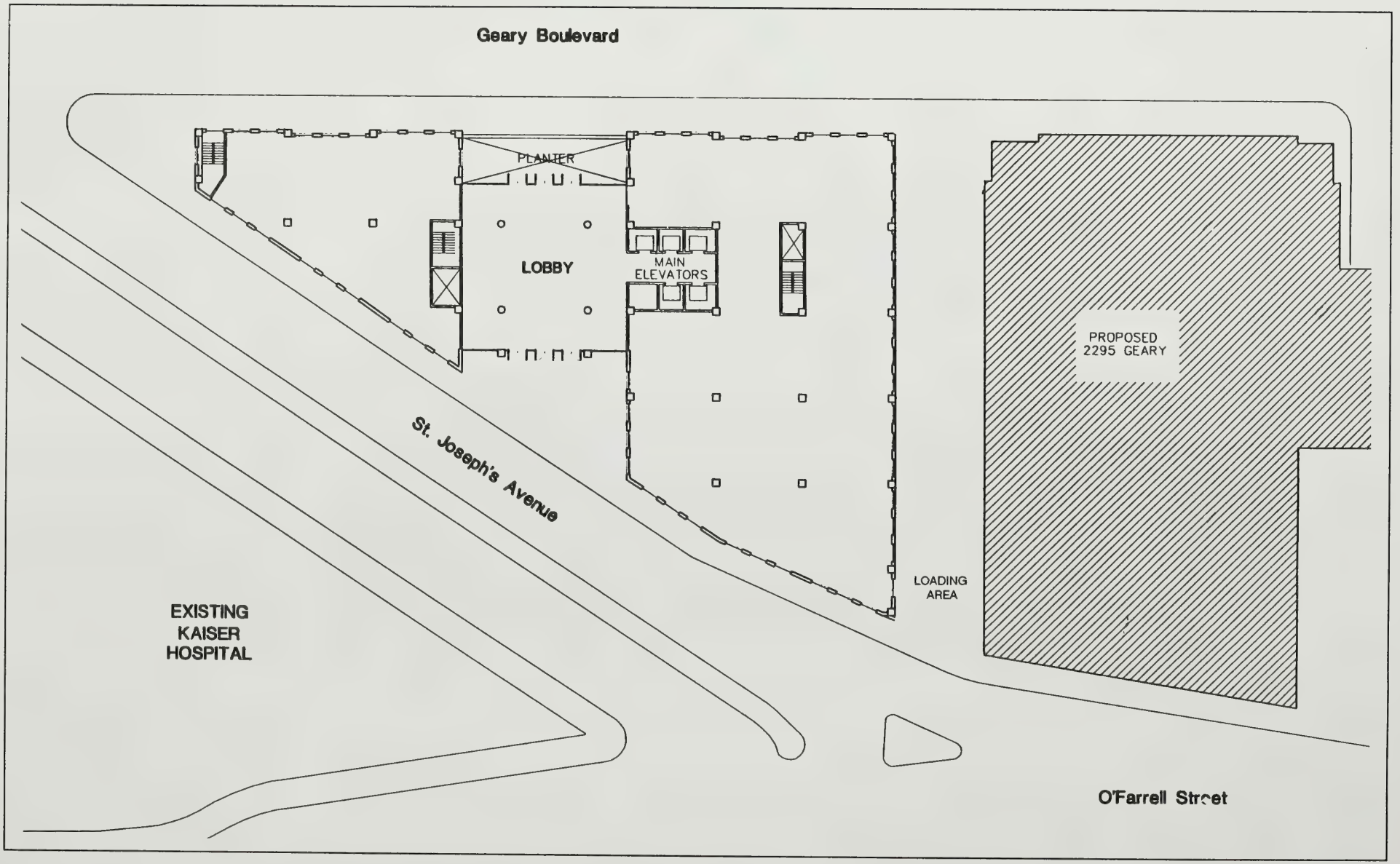
The 1455 Divisadero Street building would rise 80 ft. to the roof, plus a mechanical penthouse. It would be built to the sidewalk lines on Divisadero, Geary and O'Farrell; the ground floor would include a two-story lobby entrance setback from Divisadero Street (see Figure II.D.18, p. 82).

The new building would be built over the existing truck loading bays east of the 2130 O'Farrell Street parking structure; because of the existing grade on O'Farrell, the bays would be at the second level of the new building (see Figure II.D.22, p. 86). The below-grade parking levels would be connected to and have access from the existing 2130 O'Farrell parking structure with no new driveway or ramp provided for the 1455 Divisadero Street underground parking garage (see Figure II.D.20, p. 84). The building would have corner setbacks at the fifth floor, and setbacks on the sixth floor from the north and south sides (see Figures II.D.21 - II.D.23, pp. 85 - 87).

Phase 2B/New 350 St. Joseph's Avenue

Phase 2B would demolish the existing 350 St. Joseph's Avenue building, and construct a three-story, 97,000-sq.-ft. administrative service building, with approximately 128,400 sq. ft. of underground parking for 270 cars on five levels (see Figures II.D.24 - II.D.27, pp. 89 - 92). About 50,000 cubic yards of material would be excavated and removed from the site in order to construct the underground parking levels and the foundation of the building (see Figure II.D.12, p. 75). Typical services that could occupy the building include records processing, records storage, printing, shipping, receiving, and supply storage.

The New 350 St. Joseph's Avenue building would be built to the sidewalk lines on Geary and St. Joseph's, with a setback lobby entrance at St. Joseph's Avenue (see Figure II.D.24, p. 89 . The 2295 Geary Boulevard building garage would provide access to subsurface parking. The three-story building would be separated into two wings by the glass-curtain walled lobby. The east and west wings would have a stucco surface and individual windows (see Figure II.D.26, p. 91 . The

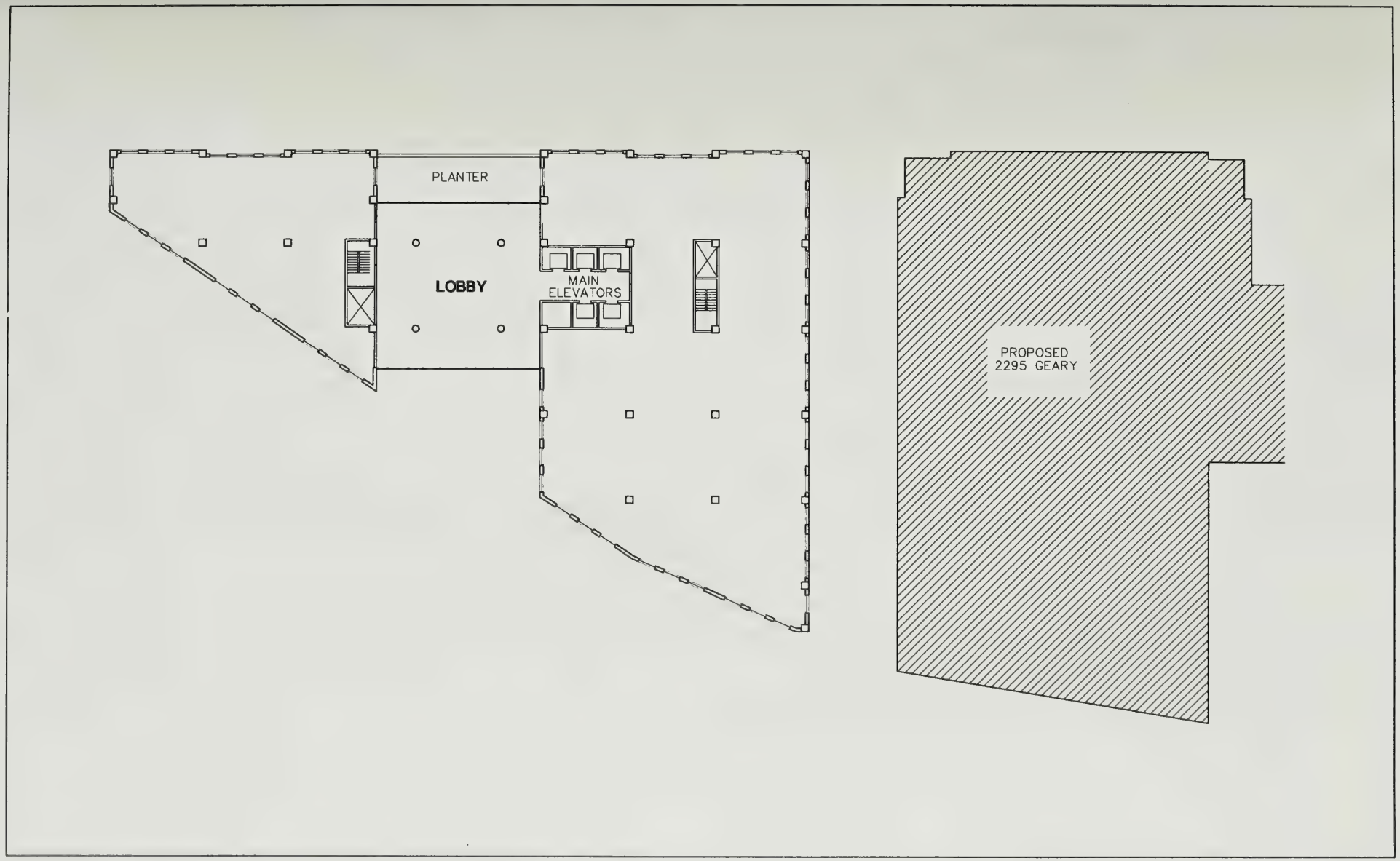


SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.24

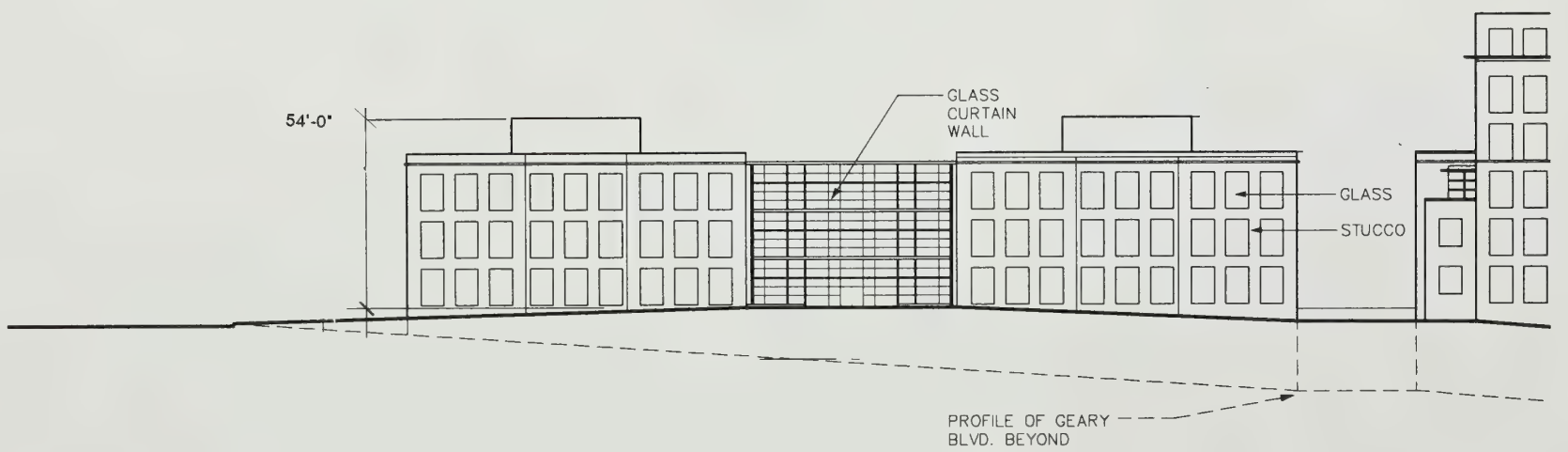
Phase 2B/New 350 St. Joseph's Avenue Ground-Level Plan



SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.25
Phase 2B/New 350 St. Joseph's Avenue
Typical Upper-Level Plan



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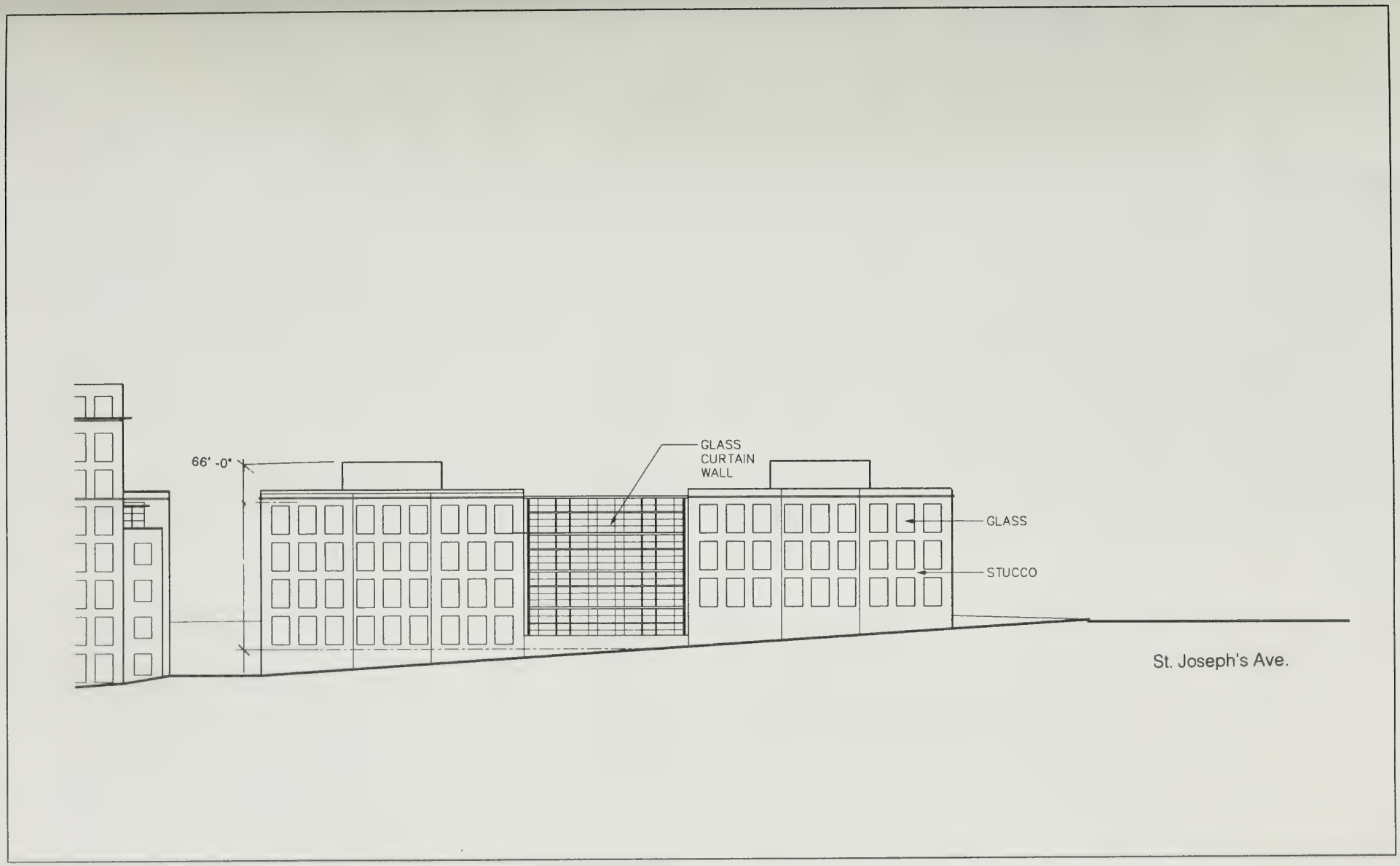
SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.26
Phase 2B/New 350 St. Joseph's Avenue
St. Joseph's Avenue Elevation



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SOURCE: Anshen & Allen Architects

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure II.D.27
Phase 2B/New 350 St. Joseph's Avenue
Geary Boulevard Elevation

building would rise to about 50 ft. from the midpoint of the site, with two mechanical penthouses above the roof of the east and west portions of the building.

The Phase 2 buildings, 1455 Divisadero Street and New 350 St. Joseph's Avenue, would be designed to be similar in character to proposed Phase 1 buildings. The Phase 2 designs discussed above are one approach to the building program that would meet the floor area and height and bulk requirements of the site. The architectural massing and detail of these two buildings could evolve before implementation of Phase 2. Should the Phase 2 buildings be modified substantially, other than as discussed in the Alternatives chapter of this EIR, at the time that the designs are submitted for approval, the modified buildings would be evaluated relative to the description and analyses presented in this EIR to determine whether or not additional environmental review would be necessary. Any substantial changes that could affect environmental conditions would be the focus of an addendum to the Final EIR or some other environmental review document.

E. PROJECT SCHEDULE, APPROVAL REQUIREMENTS, AND SAN FRANCISCO GENERAL PLAN POLICIES

PROJECT SCHEDULE AND COST

Phase 1

Phase 1A/2290 Geary Boulevard (The Eden Property)

The demolition of all the existing buildings at the Eden Property is expected to be completed in 1997, with construction of a new building at the Eden Property immediately thereafter. The timing of demolition and construction would depend on the length of the project approval process. The construction period is expected to take about 22 months. Depending upon the commencement date for construction, the property could be ready for occupancy at the end of 1998. The estimated construction cost of this new building is $28,487,000.

Phase 1B/Redevelopment of 2139 O'Farrell Street

Demolition of the 2139 O'Farrell Street building would be in 1997. Replacement housing for the 1401-17 Divisadero Street building would be constructed and completed within nine months. Demolition of the 1401-17 Divisadero Street building would begin after completion of the replacement housing. The estimated construction cost of the replacement residential building is $2,250,000. The vacant 1455 Divisadero Street site would be used for construction staging for Phase 1C/2295 Geary Boulevard, when needed.

Phase 1C/2295 Geary Boulevard

Demolition of the 2190 O'Farrell Street Garage and the 2200 O'Farrell Street building, and removal of the temporary modular buildings would begin after completion and occupancy of 2290 Geary Boulevard. Construction of 2295 Geary Boulevard would take approximately 24 months. The building is assumed for purposes of analysis in the EIR to be completed and occupied in year 2000. The estimated construction cost of this building is $32,845,000.

Phase 2

Phase 2A/1455 Divisadero Street

Construction of 1455 Divisadero Street would be anticipated to begin about year 2002. Construction would take approximately 18 months. The estimated construction cost is $13,566,000.

Phase 2B/New 350 St. Joseph's Avenue

Demolition of the existing 350 St. Joseph's Avenue building would be between the years 2003 and 2005. Construction of a new building would be expected by the end of 2009. Construction would take about 18 months. The estimated construction cost is $10,415,000.

PROJECT APPROVAL REQUIREMENTS

Following a public hearing before the City Planning Commission and San Francisco Redevelopment Agency Commission on the Draft EIR, responses to written and oral comments will be prepared; this EIR will be revised accordingly and presented to a joint meeting of the City Planning Commission and SFRA Commission for certification as to accuracy, objectivity and completeness. No permits may be issued before the Final EIR is certified.

On November 4, 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative. The measure established eight Priority Policies. These policies are: preservation and enhancement of neighborhood-serving retail uses; conservation and protection of neighborhood character; preservation and enhancement of affordable housing supply; discouragement of commuter automobiles; protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; earthquake preparedness; landmark and historic building preservation; and protection of sunlight access to public open space and public vistas. Prior to issuing a permit for any project that requires demolition, conversion or change in use, a finding of consistency with the City's General Plan, or an Initial Study under CEQA, or adopting any zoning ordinance or development agreement, the City is required to find that the proposed project or legislation is consistent with the Priority Policies (City Planning Code Section 101.1). The City Planning Commission, or Department of City Planning, during the review and approval process for the project, would make a determination of the project's conformance with the Priority Policies (City Planning Code Section 101.1), and would so advise any other approving bodies, including the Board of Supervisors.

Required City and SFRA Approvals

All demolition and building/site permit applications must be reviewed for compliance with the applicable provisions of the San Francisco Building Code and State Building Code and approved by the Department of Building Inspection.

The discretionary approval process for each subphase is dependent upon whether the particular development site is under the jurisdiction of the City and County of San Francisco or the SFRA. Depending on the timing of the submittal of permit applications, one or both of the two relevant redevelopment plans may have terminated.

The Phase 1A/2290 Geary Boulevard site (Eden Property) is under the sole jurisdiction of the Department of City Planning. The proposed building would require design review by the City Planning Commission, pursuant to Planning Code Section 249.13. Demolition and building/site permits also would be required.

The proposed building would require a determination by the City Planning Commission in consultation with the Recreation and Park Commission that the new shadows cast on the Western Addition Library and parking lot at Hamilton Recreation Center are not significant.

Phase 1B/2139 O'Farrell Street consists of demolition of the existing building and construction of 21 units of housing to replace the units in the 1401-17 Divisadero Street building proposed to be demolished. This phase would require design review by SFRA. Kaiser intends to enter into an Owner Participation Agreement (OPA) with SFRA pursuant to the Western Addition A-1 and A-2 Plans. Approval of the OPA is considered by the SFRA Commission after public hearing or hearings. The Department of City Planning would review the building design in its advisory capacity.

Demolition of the existing buildings at 2200 O'Farrell Street and annex buildings and the 2190 O'Farrell Street garage, and construction of the 2295 Geary Boulevard building on these sites would be Phase 1C of the proposed project. This phase would require design review by SFRA

and the project sponsor may enter into an OPA with SFRA pursuant to the Western Addition A-1 Plan. Approval of the OPA would be considered by the SFRA Commission after public hearing or hearings. The City Planning Department would review the building design in its advisory capacity. Development of the pedestrian bridge variant, under consideration by Kaiser, would require an encroachment permit from the City for construction over Geary Boulevard.

Phase 2A/1455 Divisadero Street would require an amendment to the Western Addition A-1 Redevelopment Plan, reclassifying the 1401-17 Divisadero property from M-4 (Residential-Medium Density) to General Commercial use. This phase would require design review by SFRA. Kaiser intends to execute an OPA with SFRA, pursuant to the Western Addition A-1 Plan. Approval of the OPA would be considered by the SFRA Commission after public hearing or hearings. The City Planning Department would review the building design in its advisory capacity.

If development of the Phase 2A/1455 Divisadero Street site begins after expiration of the Western Addition A-1 Plan, jurisdiction would revert to the City Planning Commission. Under the City's jurisdiction, Phase 2A would require City Planning Commission approval. Kaiser would request development of this subphase as a planned unit development and would seek conditional use authorization. When approving the Planned Unit Development, the City Planning Commission may grant relief from development standards such as off-street parking and loading in order to facilitate appropriate overall design objectives and to "affirmatively promote applicable objectives and policies of the General Plan."[4]

Phase 2B/New 350 St. Joseph's Avenue consists of demolition of the existing building and construction of a new building. This site is under Department of City Planning jurisdiction. Kaiser would apply for conditional use authorization to modify the existing planned unit development.[5]

Except for Phase 1A/2290 Geary Boulevard, each building under Department of City Planning jurisdiction would require conditional use authorization from the Planning Commission for the following: medical center use, use size, lot size, and other deviations from the quantitative standards of the City Planning Code, prior to approval of any building permit application to the Department of City Planning and Department of Building Inspection.

The project sponsor also has the option of executing a single Owner Participation Agreement with the SFRA for the development of Phases 1B, 1C and 2A. This would establish the proposed timing of these developments and other requirements. If the project sponsor proceeds with Phases 1B, 1C, or 2A after expiration of the Western Addition A-1 and A-2 plans, Kaiser may request a planned unit development and conditional use authorization from the City Planning Commission for all three proposed buildings. If approved, the City Planning Commission could condition its approval requiring subsequent review of the design of the proposed building for which no building permit application has been filed.

In addition to conditional use authorization by the City Planning Commission, the proposed development on the south side of the Geary Campus on Assessor's Block 1098 would require several City and SFRA actions and approvals. SFRA may grant variances from development standards set forth in the A-1 Plan in order to facilitate overall design for the entire campus. Applications for minor encroachment permits would be required to be submitted and approved by the Department of Public Works (DPW) for curb cuts for each of the proposed buildings, and for temporary sidewalk and parking lane closures during construction and general construction activity.

Applications for an encroachment permit for underground vaults to be located under the sidewalk of Broderick Street between Geary Boulevard and Garden Street for the 2290 Geary Boulevard building and other locations for the subsequent phased buildings must be submitted and approved by DPW.

City and County of San Francisco General Plan

Certain objectives and related policies contained in the several elements of the City's General Plan are relevant to the proposed project. The policies are the measures to achieve the objectives of the General Plan. The following are some of the most directly applicable objectives and policies.

The Residence Element

- Objective 3, "to retain the existing supply of housing;" Policy 1, "Discourage the demolition of existing housing."
- Objective 6: "to provide a quality living environment;" Policy 3, "Minimize disruption caused by expansion of institutions into residential areas."

The Commerce and Industry Element

- Objective 2, to "maintain and enhance a sound and diverse economic base and fiscal structure for the City."
- Objective 7, "Enhance San Francisco's position as a national and regional center for governmental, health, and educational services;" Policy 2, "Encourage the extension of needed health and educational services, but manage expansion to avoid or minimize disruption of adjacent residential areas."

The Transportation Element

- Objective 7, "Provide safe and pleasant space for pedestrians;" Policy 1, to "widen sidewalks where intensive commercial, recreational, or institutional activity is present..."
- Objective 10, "Ensure that the provision of new or enlarged parking facilities does not adversely affect the livability and desirability of the City and its various neighborhoods;" Policy 1, "Assure that new or enlarged parking facilities meet need, locational and design criteria."
- Objective 11, "Contain and lessen the traffic and parking impact of institutions on surrounding residential areas;" Policy 1, to "limit the provisions of long-term parking facilities at institutions and encourage such institutions to regulate existing facilities to assure use by short-term clients and visitors."

The Urban Design Element

- Objective 1, "emphasis of the characteristic pattern which gives to the City and its neighborhoods an image, a sense of purpose, and a means of orientation;" Policy 3, to "recognize that buildings when seen together, produce a total effect that characterizes the City and its districts;" Policy 4, to "protect and promote large-scale landscaping and open space that define districts and topography;" Policy 5, to "emphasize the special nature of each district through distinctive landscaping and other features;" Policy 6, to "make centers of

activity more prominent through design of street features and by other means;" and Policy 7, to "recognize the natural boundaries of districts, and promote connections between districts."

- Objective 3, "Moderation of major new development to complement the City pattern, the resources to be conserved, and the neighborhood environment;" Policy 1, "Promote harmony in the visual relationships and transitions between new and older buildings;" Policy 5, "Relate the bulk of buildings to important attributes of the City pattern and to the height and character of existing development;" and, Policy 6, "Relate the bulk of the buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction."

NOTES - Project Description

1. The 20,000 sq. ft. of space leased for the Occupational Medicine Center at 601 Van Ness Avenue and 425 Market Street will not be vacated as part of the project. The 60,500 sq. ft. of leased space for outpatient services proposed to be vacated are 1635 Divisadero Street, the ancillary administrative and supportive service spaces located at 2107 O'Farrell Street, 924 Presidio Street, 2580-90 Geary Boulevard, and the Chemical Dependency Recovery Program located at 1201 Fillmore Street. Kaiser currently also leases 14,500 sq. ft. of space at the Eden Property (2262-66 Geary and 2280-88 Geary).

2. The leased space for outpatient services proposed to be vacated are 1635 Divisadero Street, the ancillary administrative and supportive service spaces located at 2107 O'Farrell Street, 924 Presidio Street, 2580-90 Geary Boulevard, and the Chemical Dependency Recovery Program located at 1201 Fillmore Street. Kaiser also currently leases space at the Eden Property (2262-66 Geary and 2280-88 Geary).

3. The trailers located at 2200 Annex and 2300 Geary Boulevard would be vacated and removed. The 2200 O'Farrell Street building and the 2139 O'Farrell Street building would be demolished. The 2350 Geary Boulevard building would be vacated.

4. San Francisco City Planning Code Section 304(d)(1).

5. When the City Planning Commission approved the North Wing expansion project in 1989, its approval was for a planned unit development and conditional use. The City Planning Commission considered the total impact of the Geary Campus, including the existing hospital, and determined the number of required off-street parking spaces and off-street loading spaces for the entire Geary Campus. Under City Planning Code Sections 176 and 303(d), conditions of approval become part of the City Planning Code. Therefore, any new development on the expanded Geary Campus proposed by Kaiser under the jurisdiction of the City Planning Department will require conditional use authorization to modify the existing Planned Unit Development approval.

III. ENVIRONMENTAL SETTING

A. LAND USE AND ZONING

LAND USE

Kaiser Geary Campus

The Kaiser Geary Campus (campus) is located within the City and County of San Francisco, almost at the center of the San Francisco peninsula. Pacific Heights and Presidio Heights are north of the campus, and the Richmond District is to the west. To the south lie Anza Vista, Alamo Square Historic District and the Mission District, and to the east the Western Addition and downtown San Francisco.

The land uses surrounding the campus within a two- to three-block radius are residential, a variety of commercial uses and institutional. Most of the institutional uses are associated with Kaiser Permanente and UCSF/Mount Zion Medical Center.

The Geary Campus includes facilities located on five separate blocks generally bounded by Garden Street on the north, O'Farrell and Ellis Streets on the south, Divisadero Street on the east and Lyon and Baker Streets on the west (see Figure II.A.2, p. 46). The campus straddles Geary Boulevard, a major east-west thoroughfare. The campus slopes gently down to the northeast at an average gradient of about 5 percent.

Kaiser Hospital/Assessor's Block 1095

The Kaiser Hospital at 2425 Geary is located on the western end of the campus on the block bounded by Geary Boulevard, St. Joseph's Avenue, O'Farrell Street and Lyon Street. It is

oriented at an oblique angle toward the intersection of Geary Boulevard and St. Joseph's Avenue. The hospital consists of three wings and was constructed between 1954 and 1992 with a maximum height of eight stories. The total site area is about 102,000 sq. ft., with the main part of the structure occupying the center of the block. In the vicinity of the hospital, Geary Boulevard and O'Farrell Street rise to the west between St. Joseph's Avenue and Lyon Street.

The hospital provides a full range of general medical and surgical services. It also serves as the Kaiser regional center for cardiac care and cardiovascular surgery; and is the West and North Bay center for high-risk pregnant women and infant intensive care.

The Eden Property (Phase 1A Site)/Assessor's Block 1079

On the north side of Geary Boulevard between Broderick Street and Divisadero Street is the Eden Property, with Garden Street as the northern boundary. On the northwest corner of Geary Boulevard and Divisadero Street is Mt. Sinai Memorial Chapel, a mortuary. A 15-unit, four-story apartment building is directly west of Mt. Sinai. Neither of these properties is included in the Eden Property. The Eden Property is the site for Phase 1A/2290 Geary Boulevard, and consists of ten lots with a total of eleven buildings.

The building at 2232-38 Geary Boulevard contains a restaurant, Chicken Bistro, on the ground floor, three residential units, and offices on the second and third stories. North of this building at 11-19 Garden Street are four residential units. 2242 Geary Boulevard to the west of the Chicken Bistro restaurant contains a one-story restaurant, Cafe Paesano.

To the west of Cafe Paesano at 2240 Geary Boulevard is a two-story building containing a variety of office uses; the rear of this lot is a one-story, small garage-like building at 25 Garden Street containing the offices of Mac's Glass Shop. 2250 Geary is a small, two-story building occupied by Argonaut Press. 2256 Geary Boulevard is a two-story vacant building that is currently boarded up. The two-story medical office building at 2262-66 Geary Boulevard is leased to Kaiser for nursing education, Aerosol Treatment Center and outpatient services.

2270-74 Geary Boulevard is a three-story building with offices and one residential unit. 2280-82 Geary Boulevard (41-47 Garden Street) consist of two and three-story interconnected buildings which are leased by Kaiser for genetic services, Infusion Center, Kaiser Credit Union and outpatient services. A surface parking lot fronts on Geary Boulevard. The Choice Clinic also occupies part of the 2280-82 Geary Boulevard building. 2292-96 Geary Boulevard is a three-story building at the northeast corner of Geary Boulevard and Broderick Street; this building is the largest on the Eden Property with a small surface parking lot in the rear; except for a small portion of the building that is used for dental offices, this building is vacant.

2350 Geary Boulevard/Assessor's Block 1080, Lot 34

The 2350 Geary Boulevard building is located mid-block between Broderick Street and Baker Street. The three-story building is owned and occupied by Kaiser, has 68 offices, and includes the Kaiser Teenage Clinic, an outpatient pharmacy and physician offices. Surface parking lots are located on either side of the building. It is the only building on the block that is part of the Geary Campus.

To the east of the Kaiser facility are one- to four-story residential buildings with some ground-floor commercial uses. To the west is the one-story Naismith Dental Group office building. Hamilton Memorial Church of God in Christ is at the northeast corner of Geary Boulevard and Baker Street.

Phase 1C, 2A, and 2B Sites/Assessor's Block 1098

The entire block is part of the Kaiser Geary Campus and is bounded by St. Joseph's Avenue, Geary Boulevard, Divisadero Street and O'Farrell Street. The two-story, 31,000-sq.-ft. 350 St. Joseph's Avenue building is directly across from the hospital at the intersection of Geary Boulevard and St. Joseph's Avenue and is used by Kaiser for outpatient services, administrative offices and hospital support services. The area of Assessor's Block 1098 east of 350 St. Joseph's

Avenue, includes 2200 O'Farrell Street, which is Kaiser's main outpatient services building, and a one-story building (2200 Annex) and trailers (2241 Geary Trailers) on the parking lot fronting Geary Boulevard. The modular building houses obstetric/gynecological services and the trailers house administrative and construction management services. The eight-story 2200 O'Farrell Street building houses routine medical care, urgent care and telephone advice services.

The 2130 O'Farrell Street building is a seven-story parking garage and the 2190 O'Farrell Street building is a six-story parking garage. Both garages are owned and operated by Kaiser, and are located mid-block on O'Farrell Street between St. Joseph's Avenue and Divisadero Street. Together, these garages cover about 30 percent of the block.

Directly east of the seven-story Kaiser 2130 O'Farrell Street Parking Garage, on the southwest corner of Geary Boulevard and Divisadero Street, is a vacant lot, 2201 Geary Boulevard (Lot 38), previously the site of a Texaco gas station. South of the vacant lot is 1401-17 Divisadero Street (Lot 9), a three-story building containing ground-floor retail use and 21 apartment units.

Phase 1B Site/Assessor's Block 1101

The only Kaiser property on Assessor's Block 1101 is the three-story Kaiser facility located mid-block at 2139 O'Farrell Street (Lot 22). This building houses outpatient and administrative services and includes a surface parking lot which fronts on O'Farrell Street. Other development on Assessor's Block 1101 includes a two-story Walgreens Drug Store on the southwest corner of Divisadero and O'Farrell Streets, a Union 76 gas station on the northwest corner of Divisadero and Ellis Streets and a PG&E substation on the northeast corner of Broderick and Ellis Streets. The remainder of the block is developed with parking and residential uses. A four-story apartment building with garages at the street level is on the southeast corner of Broderick and O'Farrell Streets.

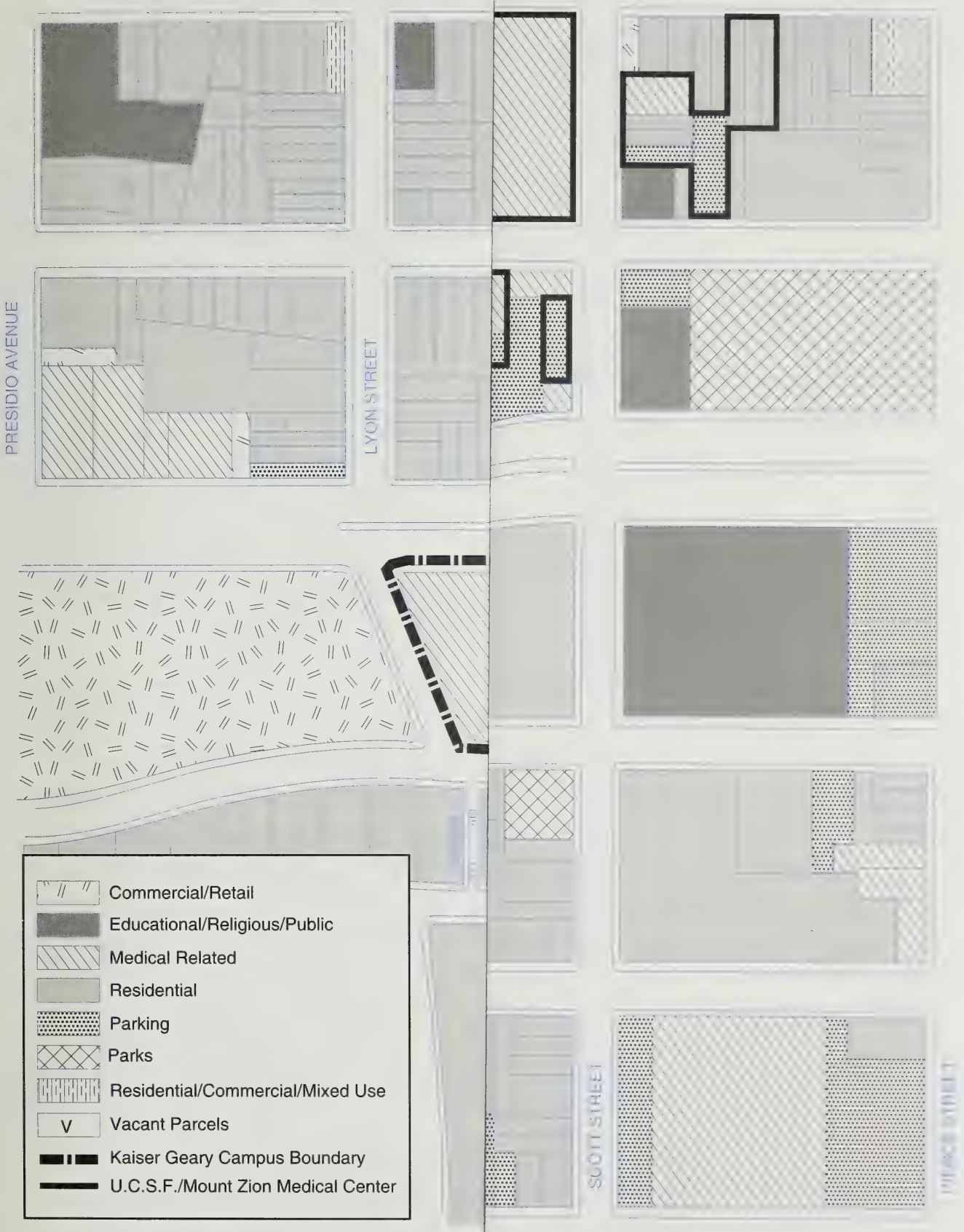
Land Use in Vicinity

A survey of existing land uses in the vicinity of the Kaiser Geary Campus was conducted in October 1995 for the area north of Eddy Street, west of Pierce Street, south of Sutter Street and east of Presidio Street. The study area covered approximately 32 blocks (Figure III.A.1).[1] Residential, retail and commercial uses, and Kaiser Geary Campus facilities are the predominant land uses along Geary Boulevard. UCSF/Mount Zion Medical Center and related medical and retail uses are the predominant land uses along Divisadero Street north of Geary Boulevard. Other surrounding blocks include residential uses ranging from single-family row houses to multi-unit flats and apartment buildings; the lot pattern on those blocks is generally small and residential in character. Many buildings near major street intersections have mixed uses with commercial or retail uses on the street level and residential uses on the upper floors. The commercial uses include neighborhood-oriented businesses.

Land uses adjacent to Geary Boulevard (between Presidio Avenue and Pierce Street) include Kaiser facilities; other commercial uses; medical, dental offices and professional services offices; public and religious uses; parking lots and parking structures; and residential, including several apartment buildings. One large retail property in the area is the former Sears store and parking lot west of the Hospital (Assessor's Block 1094), on the southeast corner of Geary Boulevard and Masonic Avenue. This property is currently occupied by several large retail uses.

Development near the campus includes older two and three-story buildings with ground-floor commercial uses and residential on the upper floors along Divisadero Street and more recent residential development east of Divisadero and south of Geary Boulevard. Ground-floor uses include restaurants, small groceries, dry cleaners, gift shops, banks and other neighborhood-serving commercial uses.

The predominant land uses in the area generally bounded by Sutter, Baker, O'Farrell, and Scott Streets are associated with the Kaiser Geary Campus and the University of California San Francisco/Mount Zion Medical Center (see Figure III.A.1). UCSF/Mount Zion



SOURCE: EIP Associates

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SAN FRANCISCO KAISER GEARY

Figure III.A.1
Existing Land Use in Project Vicinity

SOURCE: EIP Associates

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Figure III.A.1
Existing Land Use in Project Vicinity

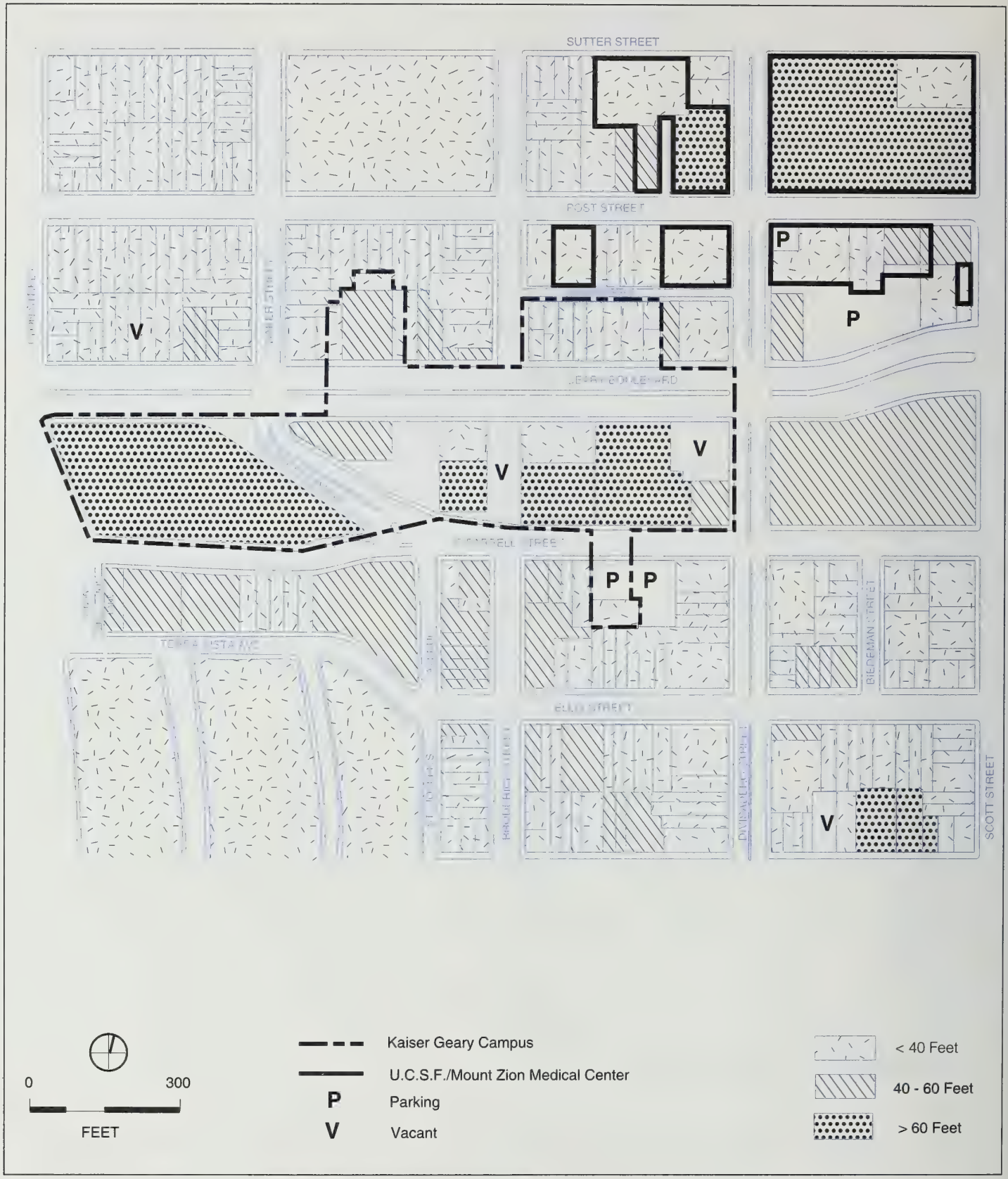
facilities are located to the north and northeast of the Geary Campus. The Mount Zion Main Hospital is on the block bounded by Divisadero, Sutter, Scott and Post Streets. Additional Mount Zion facilities, including outpatient services, laboratories, medical office, warehouse, parking garage and surface parking, are on adjacent blocks. Other major medical facilities include the San Francisco Center for Speech and Hearing and the California Podiatry Hospital. Other medical and dental offices and other related businesses, such as acupuncturists and optical offices, are found on Geary Boulevard and Divisadero Street.

Public and quasi-public land uses in the Kaiser Geary Campus vicinity include: Hamilton Recreation Center bounded by Geary Boulevard, Scott Street, Post Street and Steiner Street; Benjamin Franklin Middle School at 1430 Scott Street; Maxine Hall Health Center at 1301 Pierce Street; and Booker T. Washington Community Service Center at 800 Presidio Avenue. The Western Addition Branch Library at 1550 Scott Street is within the boundaries of Hamilton Recreation Center.

Figure III.A.2 shows the approximate heights of buildings near the Kaiser Geary Campus. Most buildings in this area are smaller-scale, generally under 60 ft. in height. Some of those over 60 ft. include Kaiser Hospital; 2200 O'Farrell Street outpatient services building; 2190 and 2130 O'Farrell Street garages; and UCSF/Mount Zion Main Hospital. The actual height of these Kaiser buildings and the building elevations that result from the upward southwest slope of the Kaiser Geary Campus sharply contrast with the two- to four-story buildings to the north, south and east.

Other Kaiser Facilities in San Francisco

Kaiser leases additional space for outpatient services and other support services near the Geary Campus. These include 924 Presidio Avenue; 1635 Divisadero Street; and 2560, 2580 and 2590 Geary Boulevard. Additionally, the regional office of Kaiser operates two clinics, the Chemical Dependency Recovery Program at 1201 O'Farrell Street and the Occupational Medicine Clinic at 601 Van Ness Avenue. Membership services are also provided at 425 Market Street.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.A.2
Existing Building Heights

Kaiser also has outpatient, acute hospital, and administrative facilities at the former French Hospital, referred to as the French Campus. Much of the campus is vacant. The French Campus, about one and one-quarter miles west of the Geary Campus, is bounded by Geary Boulevard, Anza Street, and Fifth and Sixth Avenues. It is surrounded by residential development to the east, west and south. To the north, across Geary Boulevard are a variety of commercial uses at street level. One block north of the Campus is Clement Street; two blocks south is Balboa Street. Both Clement and Balboa Streets contain neighborhood-commercial uses that serve the Inner-Richmond area.

LAND USE JURISDICTION

The Kaiser Geary Campus is under the jurisdiction of two different land use authorities. These are the City and County of San Francisco (the City) and the San Francisco Redevelopment Agency (SFRA). The City imposes land use controls through implementation of the City Planning Code, which is part of the Municipal Code. The SFRA imposes land use controls through implementation of adopted redevelopment project area plans (see Figure III.A.2, p. 108). Under the California Redevelopment Law (Health and Safety Code Section 33300 et seq.), when land use designations and controls adopted by a Redevelopment Agency differ from zoning designations and controls adopted by the local authority, the redevelopment designations preempt the local zoning authority unless the San Francisco Board of Supervisors reserved the right to apply its current City Planning Code provisions when it approved the Redevelopment Plan.

The City Planning Code

The City, through the Department of City Planning, has jurisdiction over the following portions of the Geary Campus and/or the project site: the site of 350 St. Joseph's Avenue building located at the western end of Block 1098 bounded by Geary Boulevard, Divisadero Street, O'Farrell Street and St. Joseph's Avenue (Phase 2B of the project), and the Eden Property (Phase 1A of the

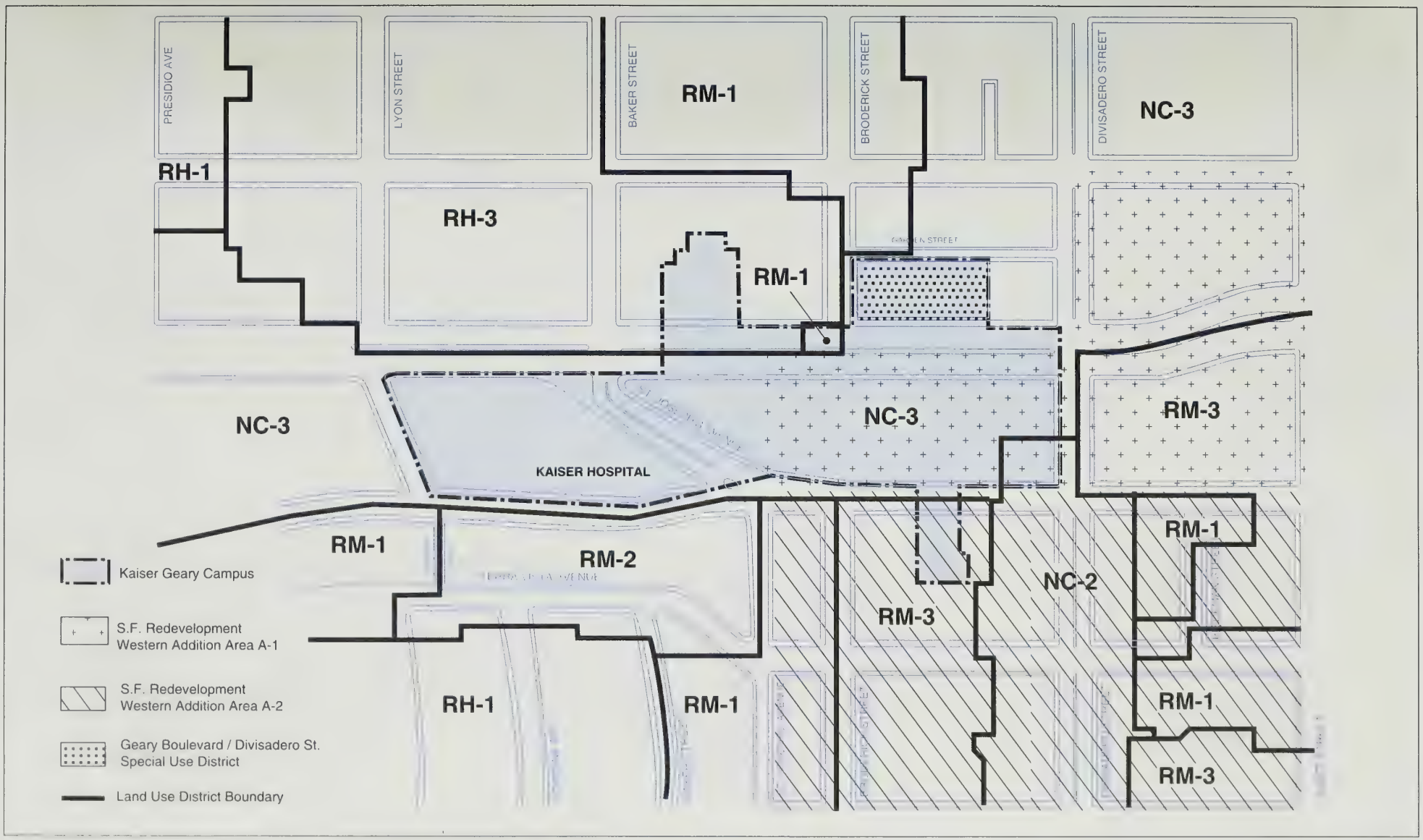
project). The 2350 Geary Boulevard site and the inpatient hospital facility bounded by Geary Boulevard, St. Joseph's Avenue, O'Farrell Street and Lyon Street, are also part of the Geary Campus. The portion of the project site under the Department of City Planning jurisdiction falls within three separate land use districts and three different height and bulk districts. The zoning, height and bulk districts are shown on the Zoning Map Sheet 2 and Sheet 2H, and the specific provisions are set forth in Article 2 and Article 7 of the City Planning Code (see Figures III.A.3 and III.A.4, pp. 111 -112).

The Eden Property

Development of the Eden Property (see Figure II.A.1, p. 45) is governed by City Planning Code Section 249.13. This section, which created the Geary Boulevard/Divisadero Street Special Use District, was approved by the voters as Proposition K in November, 1992, and is an overlay district over the existing NC-3 land use district for this site. In general, this section modified the principal permitted uses, the limitations for height, bulk and Floor Area Ratio (FAR), and exempted this site from certain other provisions of the City Planning Code provided that it is developed for outpatient service facilities affiliated with and operated by a health maintenance organization (HMO) for the benefit of its members. Co-applicant Kaiser is a qualified HMO, and Phase 1A proposes construction of an outpatient services building for use by Kaiser. Therefore, Section 249.13 would apply to the building proposed as Phase 1A of the project on this site.

Under Section 249.13, the permitted ground-floor uses are outpatient service facilities and those permitted under Section 712 governing the NC-3 districts. Retail use is a principal permitted ground-floor use in N-C districts. Residential uses and outpatient services are permitted on all upper floors.

The site has a maximum height limit of 105 ft. and has no bulk limits or mandatory setback requirements (Section 249.13(c)(6)). However, a side setback of up to 15 ft. above the height of

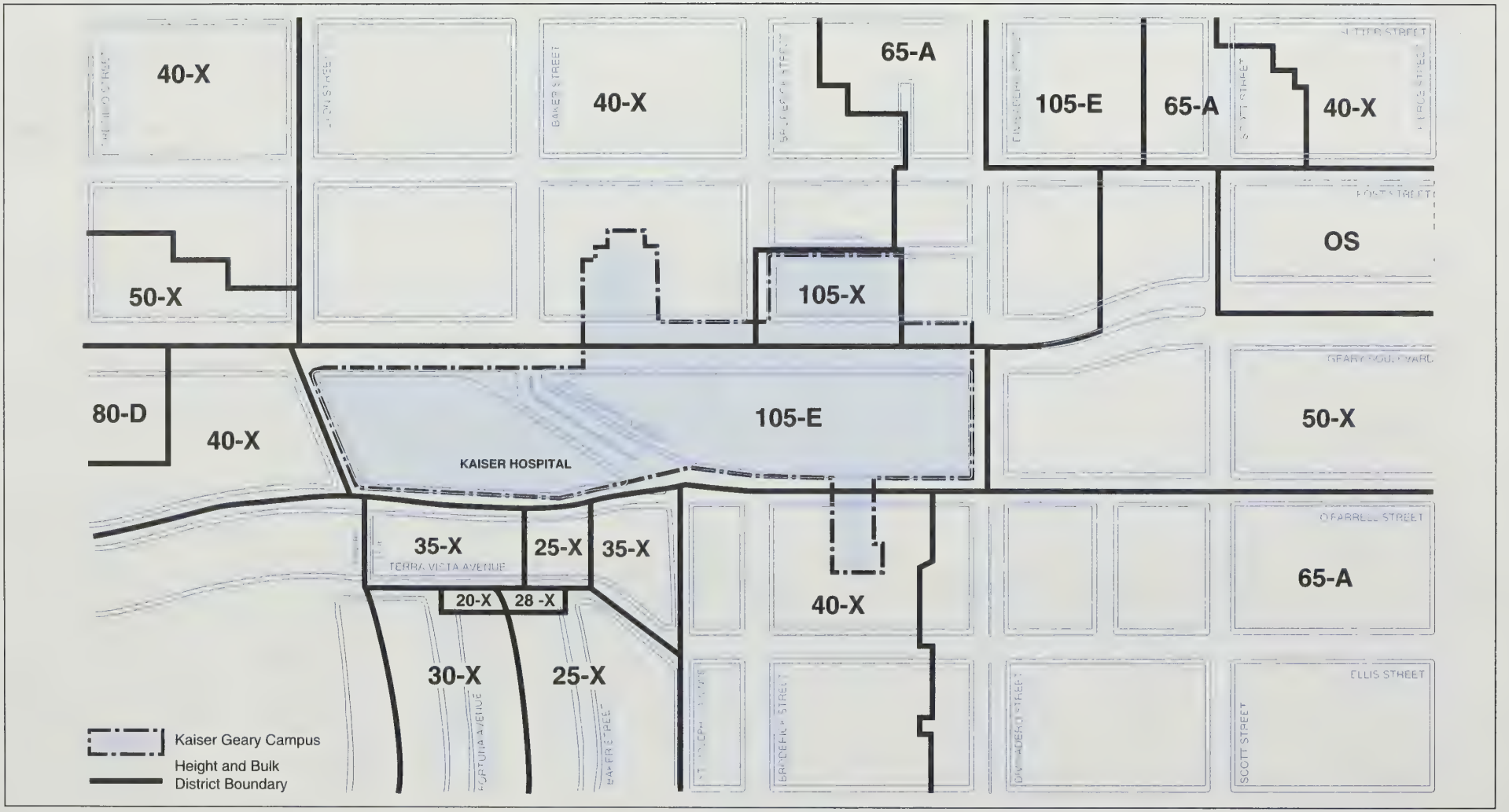


RH-1 Residential House District One-Family
RH-3 Residential House District Three-Family
RM-1 Residential Mixed District, Low Density
RM-2 Residential Mixed District, Moderate Density
RM-3 Residential Mixed District, Medium Density
NC-2 Small Scale Neighborhood Commercial District
NC-3 Moderate Scale Neighborhood Commercial District

SOURCE: City and County of San Francisco Municipal Code Zoning Maps (1990), San Francisco Western Addition Redevelopment Plan A-1, San Francisco Western Addition Redevelopment Plan A-2, EIP Associates

NOTE: The San Francisco Western Addition Plans should be consulted for land use designation in the redevelopment areas.

Figure III.A.3
Land Use Districts



BULK LIMITS

District Symbol on Zoning Map	Height Above Which Maximum Dimensions Apply	*Maximum Plan Dimensions* Length	Diagonal Dimensions
A	40 feet	110 feet	125 feet
D	40 feet	110 feet	125 feet
E	65 feet	110 feet	125 feet
X	*Bulk limits not applicable*		
OS	*Open Space-City Planning Code Section 290*		

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SOURCE: City and County of San Francisco Municipal Code-Height and Bulk Maps, EIP Associates

NOTE: Height and Bulk limits in the Western Addition Redevelopment Plan Area A-2 are regulated by the Redevelopment Plan

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.A.4
Height and Bulk Districts

65 ft. may be imposed by the City Planning Commission if necessary to achieve a superior architectural design (Section 249.13(c)(8)). The maximum allowable FAR for this site is 6:1.

Compliance with applicable notice and relocation assistance provisions of Chapter 37 of the San Francisco Administrative Code (Residential Rent and Arbitration and Stabilization Ordinance) would be required in connection with demolition or removal of residential uses on the Eden Property.

350 St. Joseph's Avenue

This site is located in a NC-3 (Moderate-Scale Neighborhood Commercial) District, and the permitted uses are set forth in Section 712 of the City Planning Code. Uses associated with a medical center are allowable as a conditional use on all levels of a building.

The site is located in a 105-E height and bulk district, which allows for a maximum building height of 105 ft., and maximum length and diagonal dimensions of 110 ft. and 140 ft. respectively for portions of a building above 65 ft. in height. The allowable FAR is 3.6 to 1.

2350 Geary Boulevard

Although not proposed for redevelopment, the site will be used for outpatient services until completion of Phase 1 of the project. This site is located in a RM-1 (Low Density Mixed Residential) district, and the permitted uses are set forth in Section 209.3 of the City Planning Code. Uses associated with a medical center are allowable as a conditional use.

The site is located in a 40-X height and bulk district, which allows for a maximum building height of 40 ft. The allowable FAR is 1.8 to 1.

Western Addition Redevelopment Project Area A-1 and A-2 Plans

The jurisdiction over the remainder of the project site is under SFRA. Development of the site areas under the jurisdiction of the SFRA is regulated by either the A-1 Plan or the A-2 Plan. The 2139 O'Farrell Street site is under the A-2 Plan. All the land east of the 350 St. Joseph's Avenue building (the Phase 1C, Phase 1B, and Phase 2A sites) are under the A-1 Plan, with two separate land use designations.

Although property owners are not legally required to enter into an Owner Participation Agreement (OPA) with SFRA, the execution of such an agreement is encouraged by SFRA. Development approved by the SFRA for any project area, pursuant to an OPA, would be required to fulfill State Redevelopment Law (California Health and Safety Code Section 33300). State law provides for relocation assistance for qualified residents, businesses and institutions, and imposes replacement housing requirements of the Redevelopment Agency, if qualifying low income and affordable housing is demolished. Under an OPA, a project sponsor is also required to comply with affirmative action program requirements, both for the construction of the project and for operation of the activities in the building. The OPA would also provide the timing under which various tasks must be completed by the owner and the agency.

The following discussion outlines the specific Redevelopment Plan provisions applicable to the buildings for each subphase of the project.

2139 O'Farrell (Phase 1B Site)

This site is under the A-2 Plan and is designated for "institutional use" with an alternate designation as "medium-density residential use". The proposed use is medium-density residential. The maximum height is 40 ft. and the permitted dwelling unit density is 200 sq. ft. of lot area for each "agency room," or a maximum of 58 rooms, as defined by the Redevelopment Agency.

The A-2 Plan will terminate in year 2009, if not extended. If an OPA is not executed by the termination date of the A-2 Plan, this site will revert to the jurisdiction of the Department of City Planning, and the proposed building must comply with the City Planning Code. If an OPA is executed, it would govern development of the site.

Phase 1B/Demolition of 1401-17 Divisadero (Phase 2A Site)

The 1401-17 Divisadero site is under the A-1 Plan and is designated as "residential-medium density, M-4". The use of this site is limited to residential and the permitted dwelling unit density is 200 sq. ft. of lot area for each "agency room". The proposed project would require an amendment to the A-1 Plan to change the residential-medium density (M-4) designation to a Community Shopping designation, if it is to be developed as proposed in Phase 2A of the Project. Amendment to the A-1 Plan would require approval by the SFRA Commission and the Board of Supervisors.

2190 and 2200 O'Farrell (Phase 1C Site)

This site, part of Lot 50 of Assessor Block 1098, consists of the sites of the existing 2190 O'Farrell Street Garage, the existing 2200 O'Farrell outpatient services building and the parking lot area where a temporary building for OB/GYN and the temporary trailers for administrative services and construction management are located. The land use designation for this site is Community Shopping with medical center-related uses as a permitted use.[2] There are no height or bulk limitations. The FAR limit is 3.6 to 1.

1401-17 Divisadero Street and 2001 Geary Boulevard (Phase 2A Site)

This site consists of the vacant 2001 Geary Boulevard site previously occupied by a Texaco gas station, and 1401-17 Divisadero Street, which is developed with a three-story mixed-use building (retail/commercial on the ground floor and 21 residential units at the upper levels).

The land use designation of the 2001 Geary Boulevard (previous Texaco site) is Community Shopping with medical center-related use as a permitted use. There are no height or bulk limitations. The maximum allowed FAR is 3.6 to 1.

If the 1401-17 Divisadero Site is redesignated as Community Shopping, the development standards for this site would be identical to that of the 2995 Geary Boulevard and 2001 Geary Boulevard sites.

The A-1 Plan will terminate in year 2000, if not extended. If an OPA is not executed by the termination date of the A-1 Plan, this site will revert to the jurisdiction of the Department of City Planning, and the proposed building must comply with the City Planning Code. If an OPA is executed, it would govern development of the site.

If Kaiser fails to execute an OPA or OPAs with SFRA prior to the termination date of the A-1 Plan or A-2 Plan, jurisdiction of the sites for Phases 1B, 1C and 2A would revert to the Department of City Planning, and the proposed buildings must comply with the City Planning Code. If an OPA is executed, it would govern development of the site.

The following is a discussion of the applicable City Planning Code provisions should reversion of jurisdiction to the San Francisco Planning Commission occur.

2139 O'Farrell (Phase 1B Site)

This site is located in a RM-3 (Residential Medium Density) district and a 40-X height and bulk district. Under Section 209.3 of the City Planning Code, the site may be developed with conditional use authorization for medical center-related uses. It may be developed for residential with a maximum of 29 units, based on 400 sq. ft. per lot area.

2190 and 2200 O'Farrell (Phase 1C Site)

This site is located in a NC-3 district, and a 105-E height and bulk district. See discussion on p. 115 for a description of this site. The FAR limit is 3.6 to 1. The development constraints would be identical to those imposed on 350 St. Joseph's Avenue (see p. 113).

1401-17 Divisadero Street (Phase 2A Site)

The 1401-17 Divisadero Street site is located in a NC-2 (Small-Scale Neighborhood Commercial) district, and the permitted uses are set forth in Section 711 of the City Planning Code. Medical services are allowed on the ground floor and the second floor; institutional medical center use is not allowable on this site under NC-2 zoning.

The site is located in a 105-E height and bulk district, which allows for a maximum building height of 105 ft., and maximum length and diagonal dimensions of 110 ft. and 140 ft., respectively, for portions of a building above 65 ft. in height. The allowable FAR is 2:5 to 1 in a NC-2 district. The proposed project would require an amendment to the City Planning Code zoning map to reclassify the property from the NC-2 zoning district classification to a NC-3 district. This would require approval by the City Planning Commission and the Board of Supervisors.

The vacant site previously occupied by Texaco is located in a NC-3 district, with medical center-related uses allowable as a conditional use. It is located in a 105-E height and bulk district. The development constraints would be identical to those imposed on the 350 St. Joseph's site (see p. 113).

NOTES - Land Use and Zoning

1. The Land Use survey was completed by EIP Associates on October 22, 23 and 24, 1995.

2. The 2200 O'Farrell building and the 2190 O'Farrell garage were constructed pursuant to OPAs entered into between Kaiser and SFRA in 1964 and 1965, respectively.

B. URBAN DESIGN AND VISUAL QUALITY

KAISER GEARY CAMPUS

Most of the buildings on the Geary Campus south of Geary Boulevard were constructed between 1954 and 1992 for medical-related or parking uses. The 1401-17 Divisadero mixed-use building was built in the 1930s. Buildings on the Eden Property were constructed in the late 19th and early 20th centuries as residences. Many of these residential buildings have been converted to office, commercial, restaurant and medical office uses. The architectural character of the campus thus reflects various building periods. The campus is dominated visually by existing Kaiser facilities on the south side of Geary Boulevard, including Kaiser Hospital, outpatient services buildings at 2200 O'Farrell Street and 350 St. Joseph's Avenue, and the parking structures at 2130 and 2190 O'Farrell Street.

Kaiser Hospital

The Kaiser Hospital at 2425 Geary Boulevard occupies the block bounded by Geary Boulevard, St. Joseph's Avenue, O'Farrell Street and Lyon Street and is oriented at an oblique angle toward the intersection of Geary Boulevard and St. Joseph's Avenue. Figure III.B.1 shows the view of the Hospital from Geary Boulevard, near St. Joseph's Avenue. Across St. Joseph's Avenue (left side of photo) is the two-story 350 St. Joseph's Avenue building and the 2200 O'Farrell Street building. Construction of the original portion of the hospital was completed in 1954. Additions and renovations to the hospital were completed in 1966 and 1969. Addition of a new north wing and major renovation of the east wing of the hospital was completed in 1992, which created a street-level main entrance to the hospital off Geary Boulevard.

The hospital rises up eight stories from Geary Boulevard. Because of existing topography, three stories of the hospital are visible from O'Farrell Street. The hospital architecture is of concrete with colored-metal detailing and a flat roof. Along the ground level facing Geary Boulevard and St. Joseph's Avenue, the facade has a series of colored-metal framed recessed windows that break

SOURCE: EIP Associates

SAN FRANCISCO KAISER CEARY CAMPUS PROJECT

Figure III.B.1
St. Joseph's Avenue Looking Southeast

up the massing of the facade. The original hospital was an International school building constructed with a glass curtain wall. This building is undergoing seismic retrofit and the facades are being reclad to be more reflective of the facade of the new north wing. The hospital building is not part of the proposed project.

2350 Geary Boulevard

The four-story 2350 Geary Boulevard building, located on the north side of Geary Boulevard between Baker Street and Broderick Street, was built in 1955. The building is a simplified, modern style with little architectural detail. There are surface parking lots on each side of the building. This site is not proposed for redevelopment.

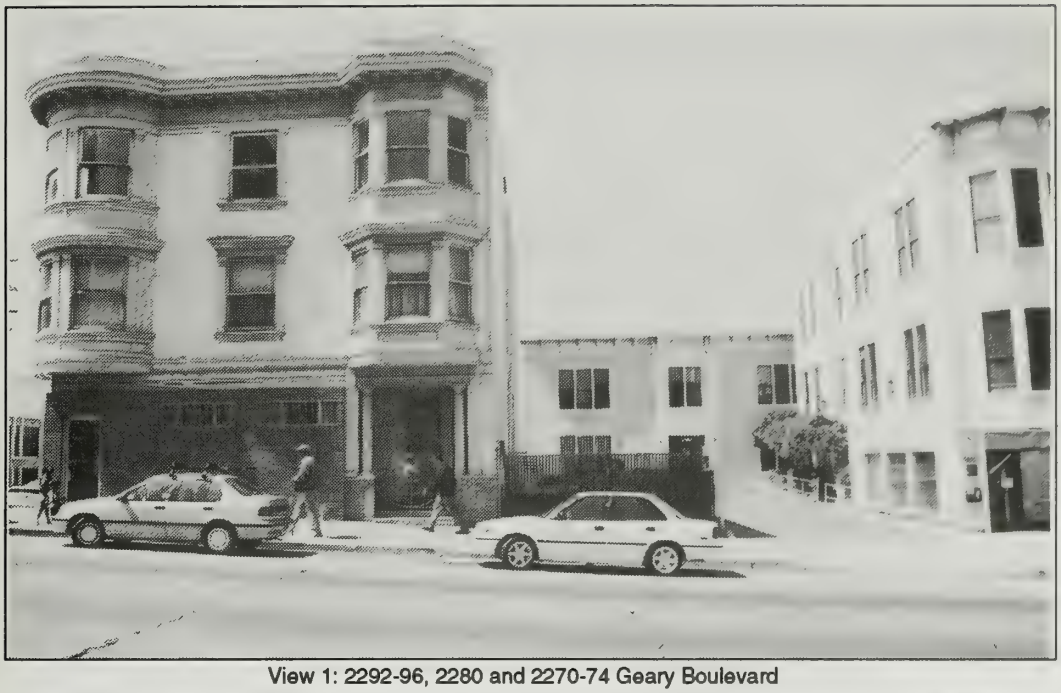
2232-96 Geary Boulevard, 11-19 Garden Street and 25 Garden Street (Eden Property)

The Eden Property on the north side of Geary Boulevard contains eleven one- to four-story residential or commercial/office buildings of various architectural styles. The Eden Property buildings are of a smaller scale than existing Kaiser buildings on the south side of Geary Boulevard. See III.C. Architectural Resources, pp. 139 -151 for descriptions of the structures on the Eden Property. The Eden Property is part of the expanded Geary Campus.

Figure III.B.2 and III.B.3, pp. 121 - 122, show the Eden Property buildings that front Geary Boulevard, starting from Broderick Street going east.

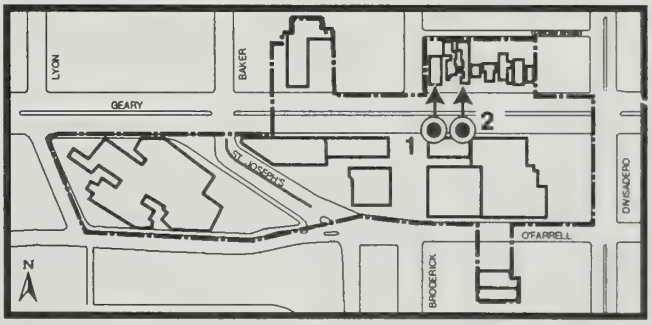
2139 O'Farrell Street

The three-story medical office building at 2139 O'Farrell Street, completed in 1960, is set back to the rear of the lot, with parking fronting on O'Farrell (see Figure III.B.4, p. 123). The building is typical of the single-tiered modern style institutional buildings built in the 1950s and



View 1: 2292-96, 2280 and 2270-74 Geary Boulevard

View 2: 2270-74 and 2266 Geary Boulevard



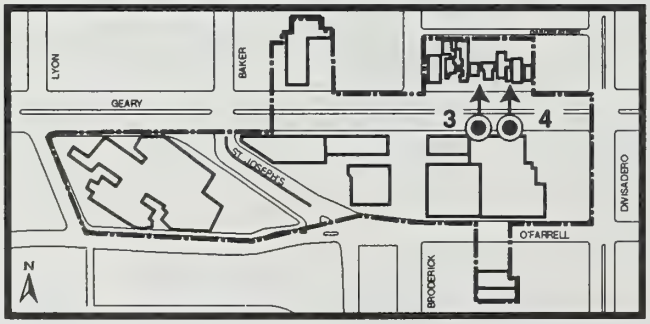
SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.2
Eden Property (2296 through 2266 Geary Boulevard)

View 3: 2266, 2256 and 2250 Geary Boulevard

View 4: 2250, 2240, 2242 and 2232-38 Geary Boulevard



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.3

Eden Property (2266 through 2232 Geary Boulevard)

SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.4
O'Farrell Street Looking South
2139 O'Farrell Street

1960s. The north half of the lot fronting O'Farrell Street contains surface parking and landscaping. This building is visible from O'Farrell Street at short range. Existing buildings to the north, east and west block long-range views of the building.

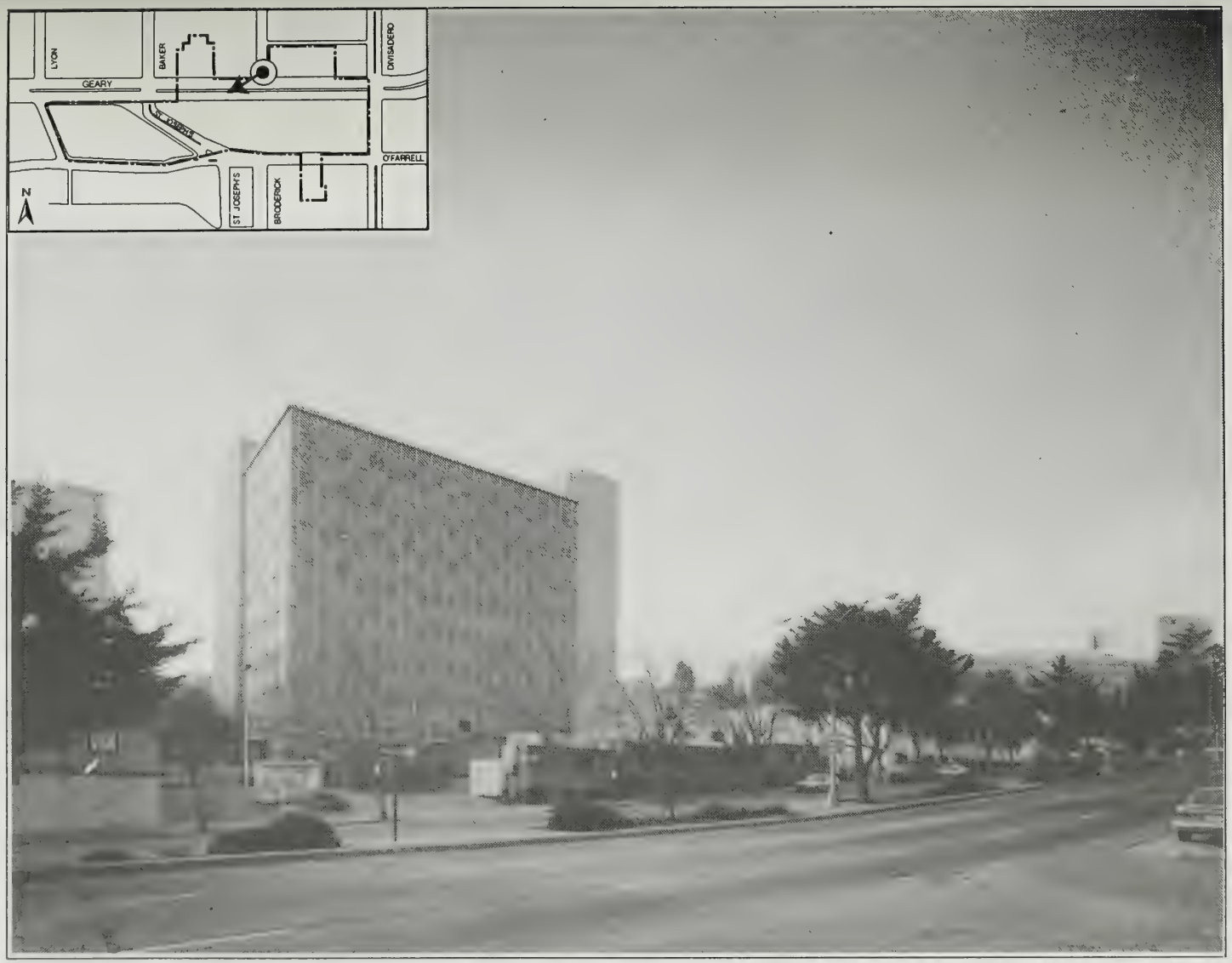
2130, 2190, and 2200 O'Farrell Street

2200 O'Farrell Street

The eight-story Kaiser outpatient services building at 2200 O'Farrell Street, built in 1964, is an example of the International School style of architecture with metal-framed grid pattern windows and drab, metal paneling. The corners of the building have vertically articulated piers (see Figure III.B.5). Trailers and one-story modular buildings are placed between the 2200 O'Farrell building and 2130 O'Farrell Garage along Geary Boulevard.

2190 O'Farrell Street

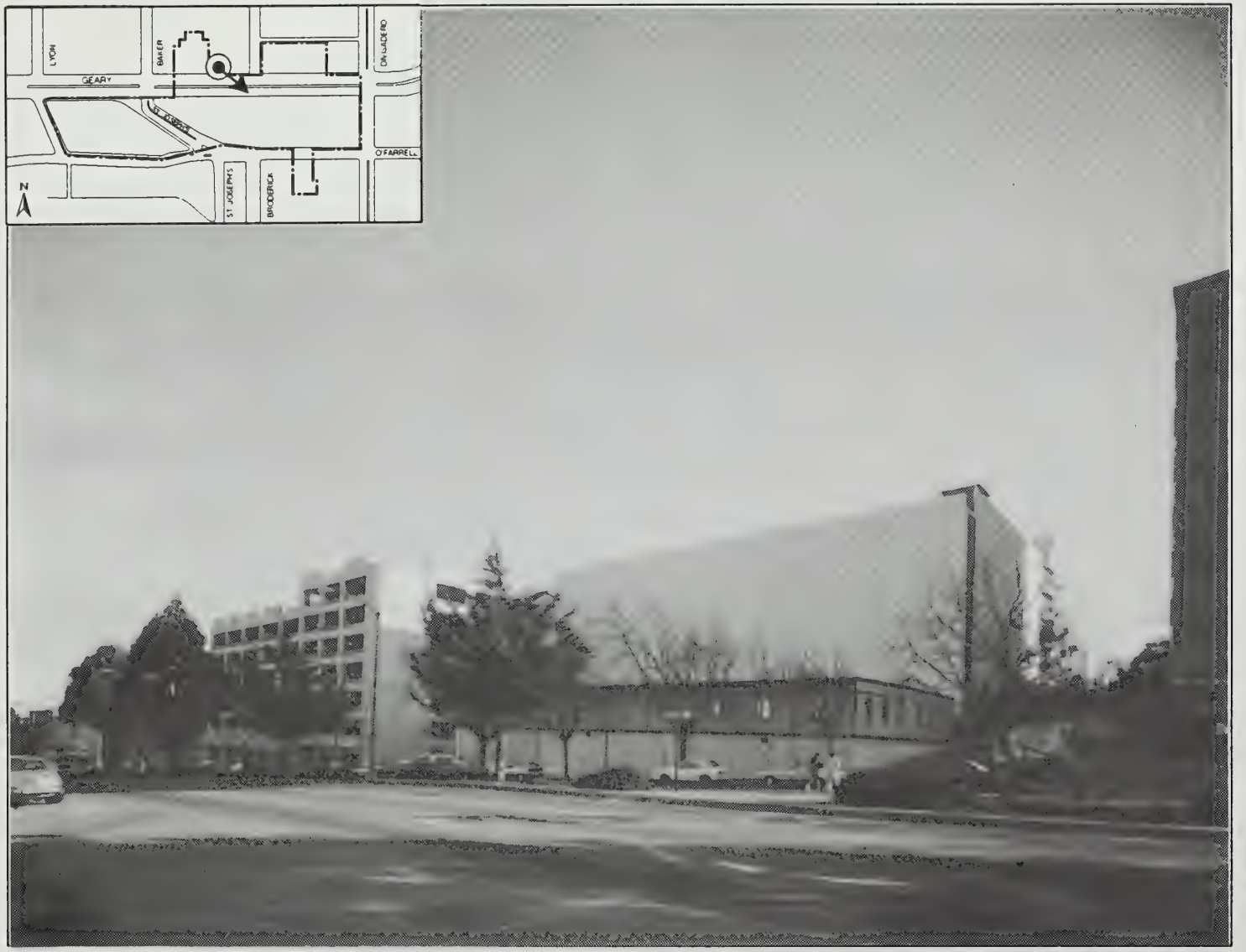
The Geary Boulevard facade of the six-story 2190 O'Farrell Garage is a blank wall with no opening or architectural details. The O'Farrell Street facade has been renovated as part of the seismic upgrade, to reflect the 2130 O'Farrell Street Garage with similar rectangular openings, metal detail and color schemes. Figure III.B.6, p. 126, shows from left to right, the 2130 O'Farrell Street garage, annex building and 2190 O'Farrell garage. The Broderick Street right-of-way, between 2190 and 2200 O'Farrell Street from Geary Boulevard to O'Farrell Street, serves as a landscaped walking and sitting area. This space provides a view of the hillside areas of Pacific Heights and Presidio Heights area north of Geary Boulevard as shown in Figure III.B.7, p. 127.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

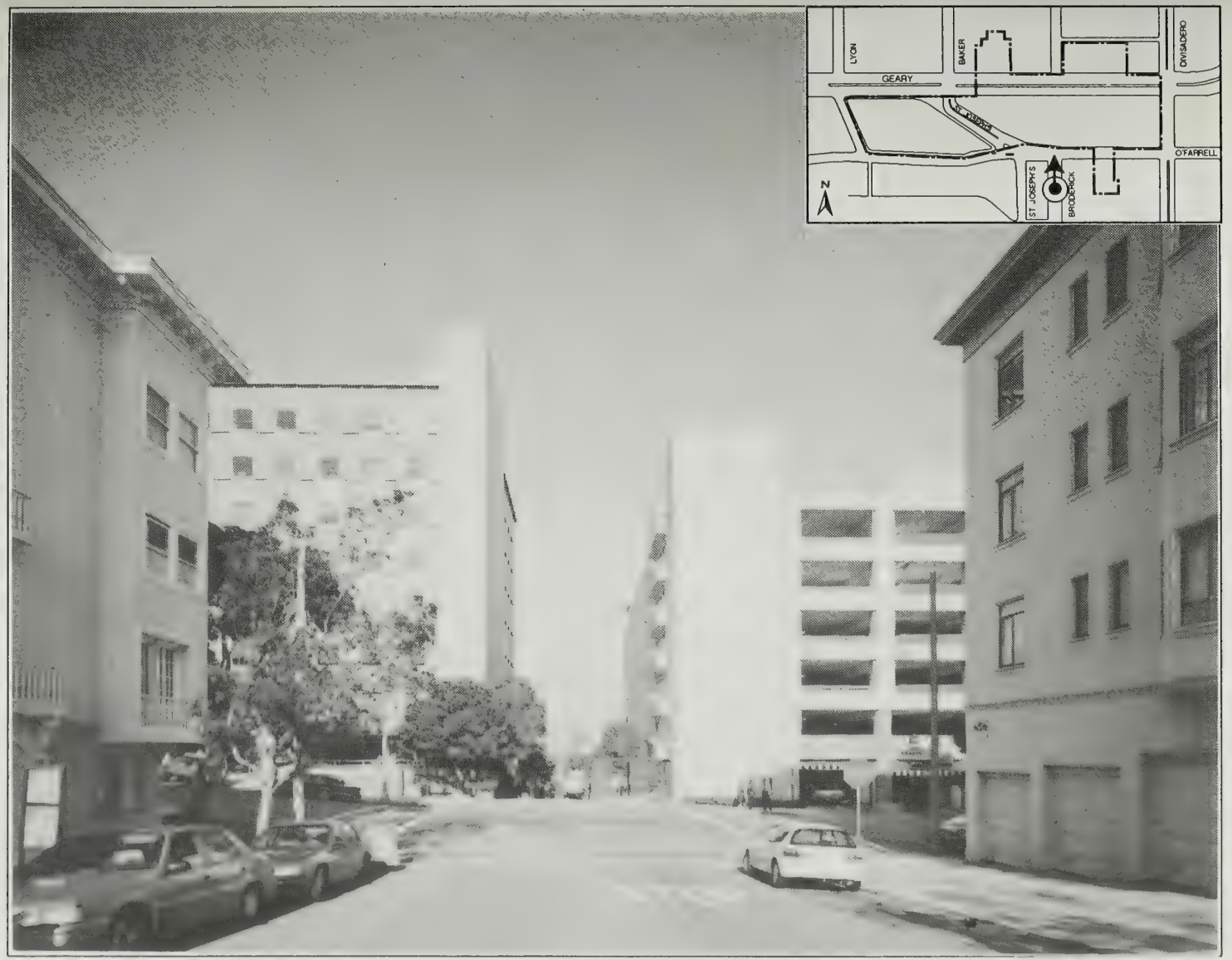
Figure III.B.5
Geary Boulevard Looking Southwest
2200 O'Farrell Street



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.6
Geary Boulevard Looking Southeast
2130 and 2190 O'Farrell Street



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.7
Broderick Street Right-of-Way Looking North
2200 and 2190 O'Farrell Street

2130 O'Farrell Street

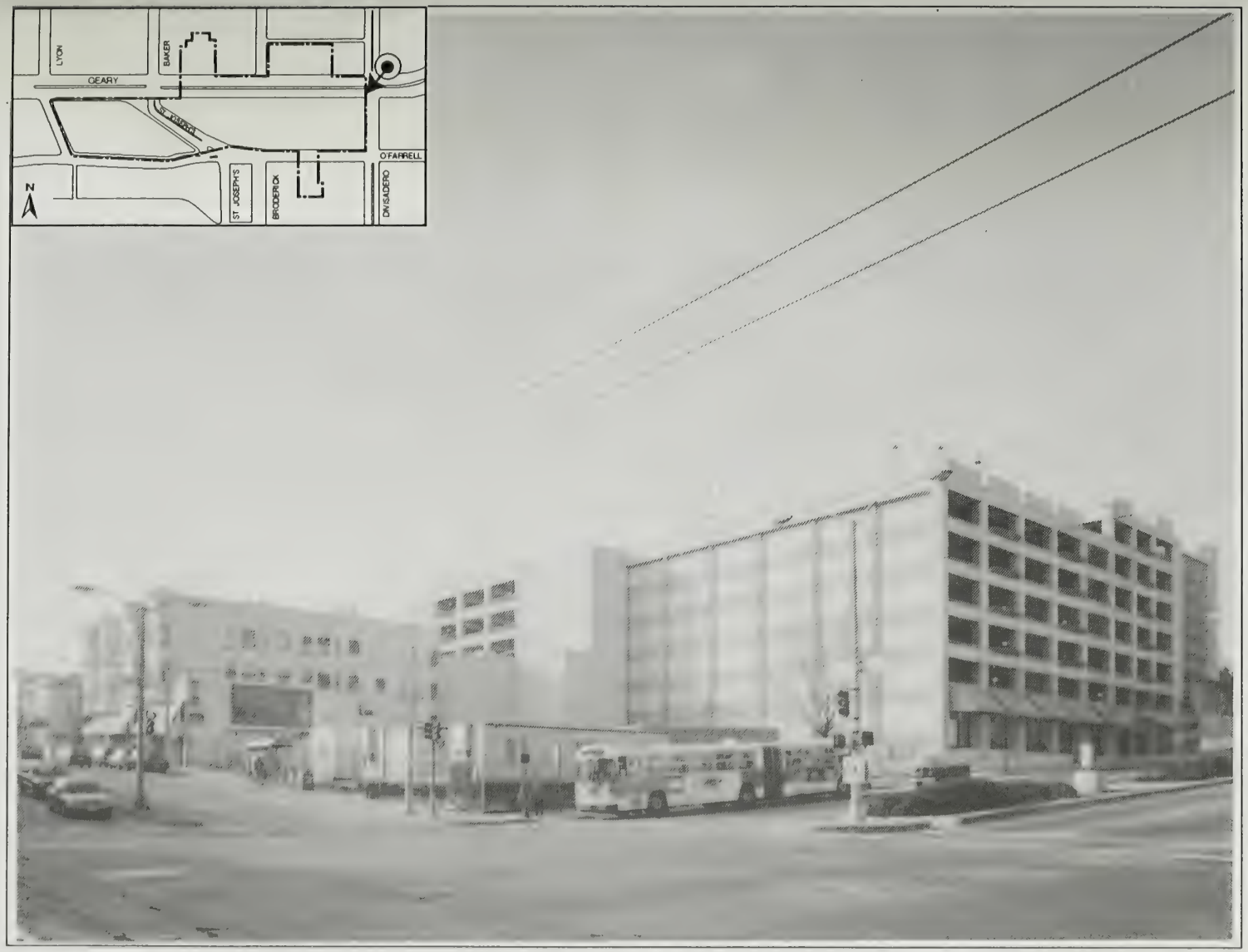
The seven-story 2130 O'Farrell parking structure, completed in 1991, is neutral-colored, textured concrete with horizontal and vertical metal detail. Figure III.B.8 shows, from left to right, 1401-1417 Divisadero and the 2130 O'Farrell Street garage, with the vacant Texaco site and trailers in the foreground. The street-level frontage of the garage on Geary Boulevard contains retail space with decorative awnings. The eastern facade of 2130 O'Farrell Street garage is visible from long-range and short-range vantage points along Geary Boulevard and Divisadero Street.

2101 Geary Boulevard (Vacant Texaco Station site)

The southwest corner of Divisadero Street and Geary Boulevard is a vacant site (formerly a service station), with two temporary trailers.

1401-17 Divisadero Street

A three-story commercial and apartment building, built in the 1930s is located at 1401-17 Divisadero Street, on the northwest corner of Divisadero and O'Farrell Streets. The stucco building has decorative awnings over the street-level entrance. Figure III.B.9, p. 130 shows the apartment building when viewed near the intersection of Divisadero and O'Farrell Street. The building can be viewed from the elevated areas to the west and south and from Divisadero Street. The vacant lot at the southwest corner of Geary Boulevard and Divisadero Street also allows short-range views of the building from the north and west.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.8

Divisadero Street Looking Southwest-1401-17 Divisadero Street, Vacant Texaco Site and 2130 O'Farrell Street

SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.9
Divisadero Street Looking Northwest- 2130 O'Farrell Street and 1401-17 Divisadero Street

350 St. Joseph's Avenue

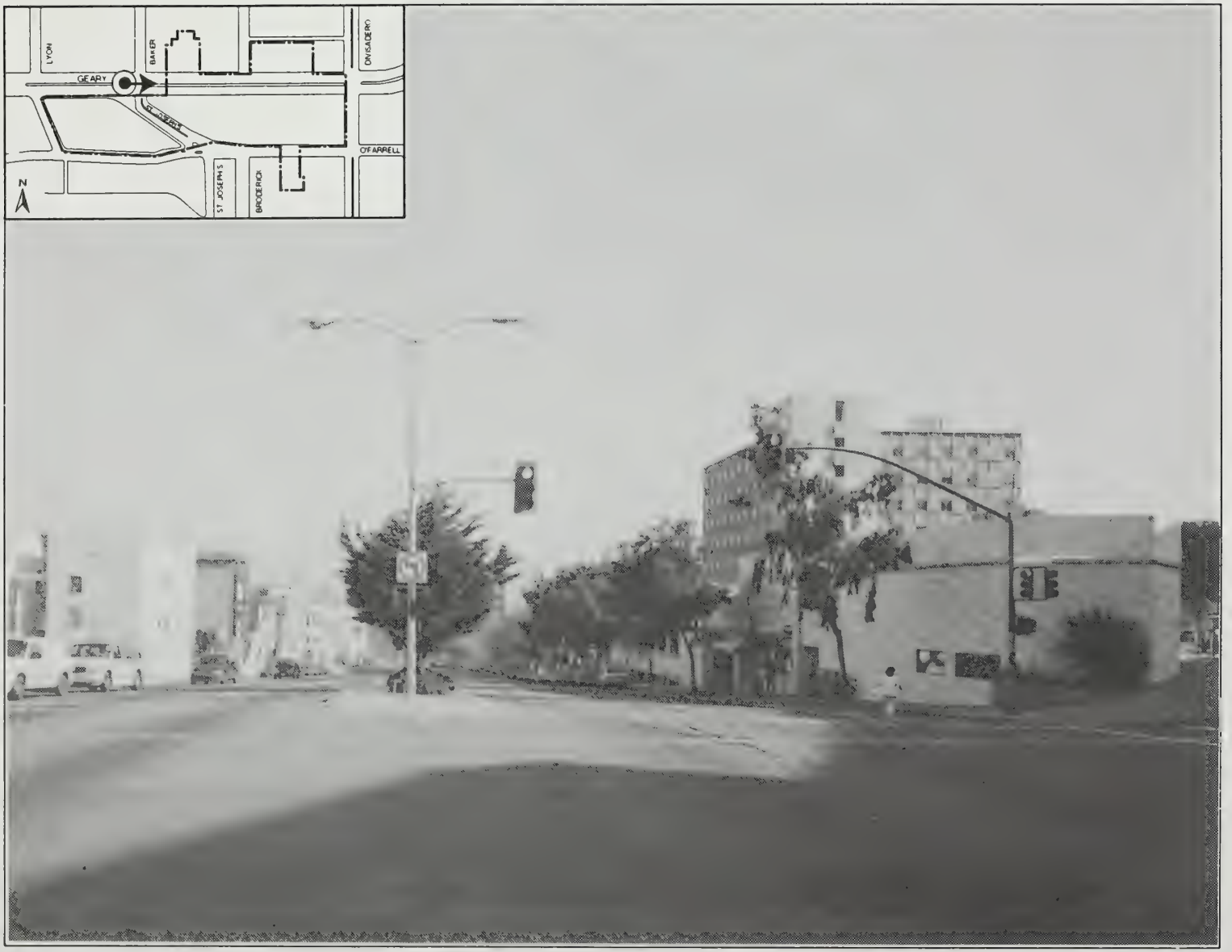
The two-story 350 St. Joseph's Avenue building wraps around the diagonal intersection of St. Joseph's Avenue and Geary Boulevard. The building is an example of post-World War II simplified art moderne. The facade of the building is a smooth plane with few windows and a narrow horizontal detail band near the flat roof. There is a small landscaped area near the intersection of St. Joseph's Avenue and O'Farrell Street. The building's location on the corner of Geary Boulevard makes it visible from the west, north and south. The taller buildings on the campus to the east obstruct views from the east.

KAISER GEARY CAMPUS VICINITY

The Kaiser Geary Campus is in the urbanized Western Addition area of San Francisco, developed with a mix of residential, commercial and institutional buildings. The streets are generally laid out in the grid system. In addition to the campus buildings, the Geary Boulevard corridor includes larger-scale development such as apartments, the City Centre shopping area west of Kaiser near Masonic Avenue, and the San Francisco Municipal Railway (MUNI) headquarters and bus yard at Geary near Presidio Avenue. Those uses contrast in scale with the pattern of one- to four-story residential buildings on smaller lots north and south of Geary. Figure III.B.10 shows the view from the Geary Corridor looking east. On the right side of the photo is the 350 St. Joseph's building with the 2200 O'Farrell building in the background.

Figure III.B.11, p. 133, shows the view of the Geary Corridor looking west. From left to right are the vacant Texaco site, 2130 O'Farrell Street garage, landscaped median and properties on the north side of Geary Boulevard, including the Eden Property.

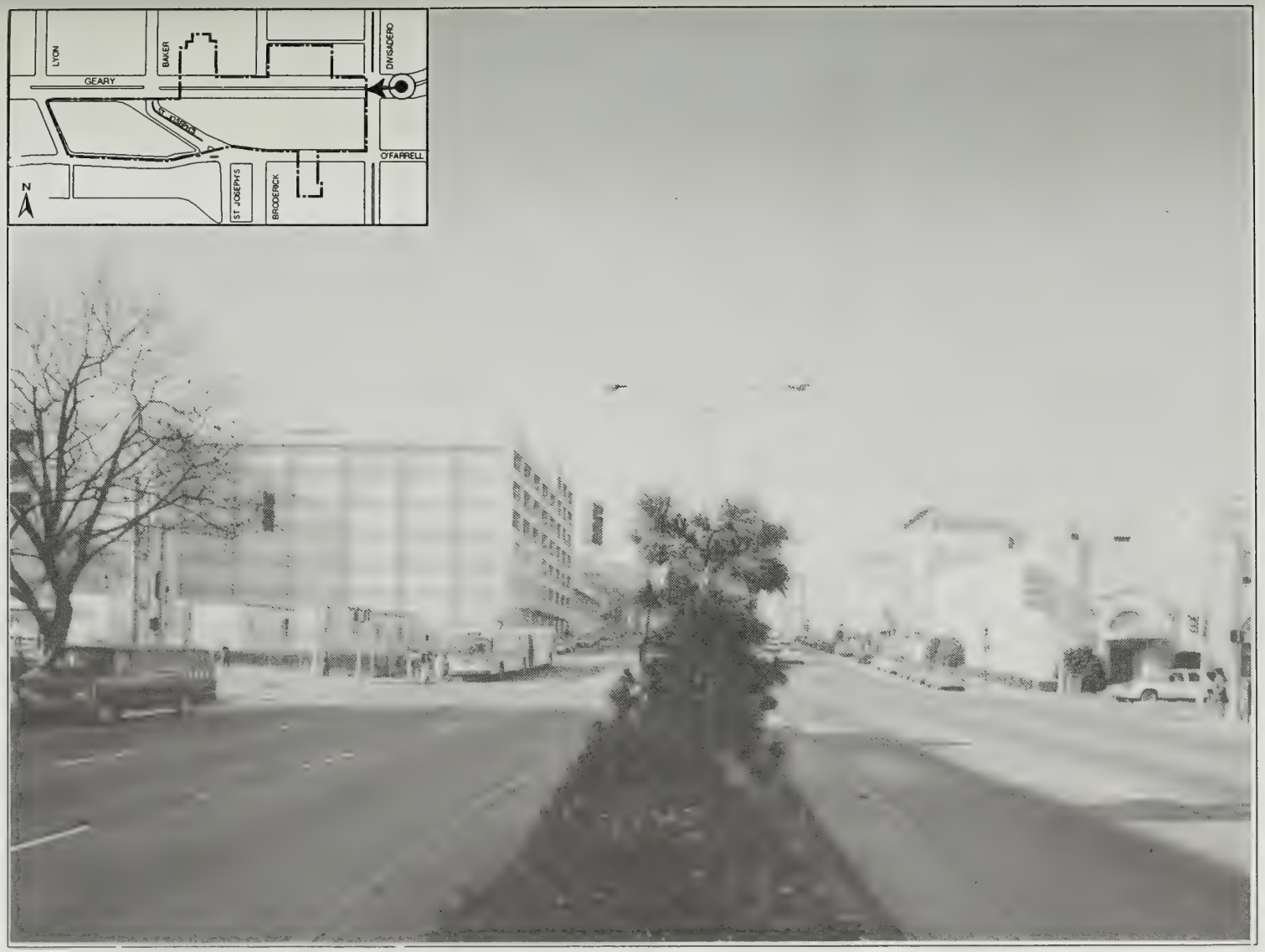
Immediately surrounding the Geary Campus are small-scale commercial and two- to four-story multi-family residential buildings. The architecture of the older buildings is a mix of Victorian styles and late-20th-century styles.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.10
Geary Boulevard Looking East
350 St. Joseph's Avenue and 2200 O'Farrell Street



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.11

Geary Boulevard Looking West - 2130 O'Farrell Street and Eden Property

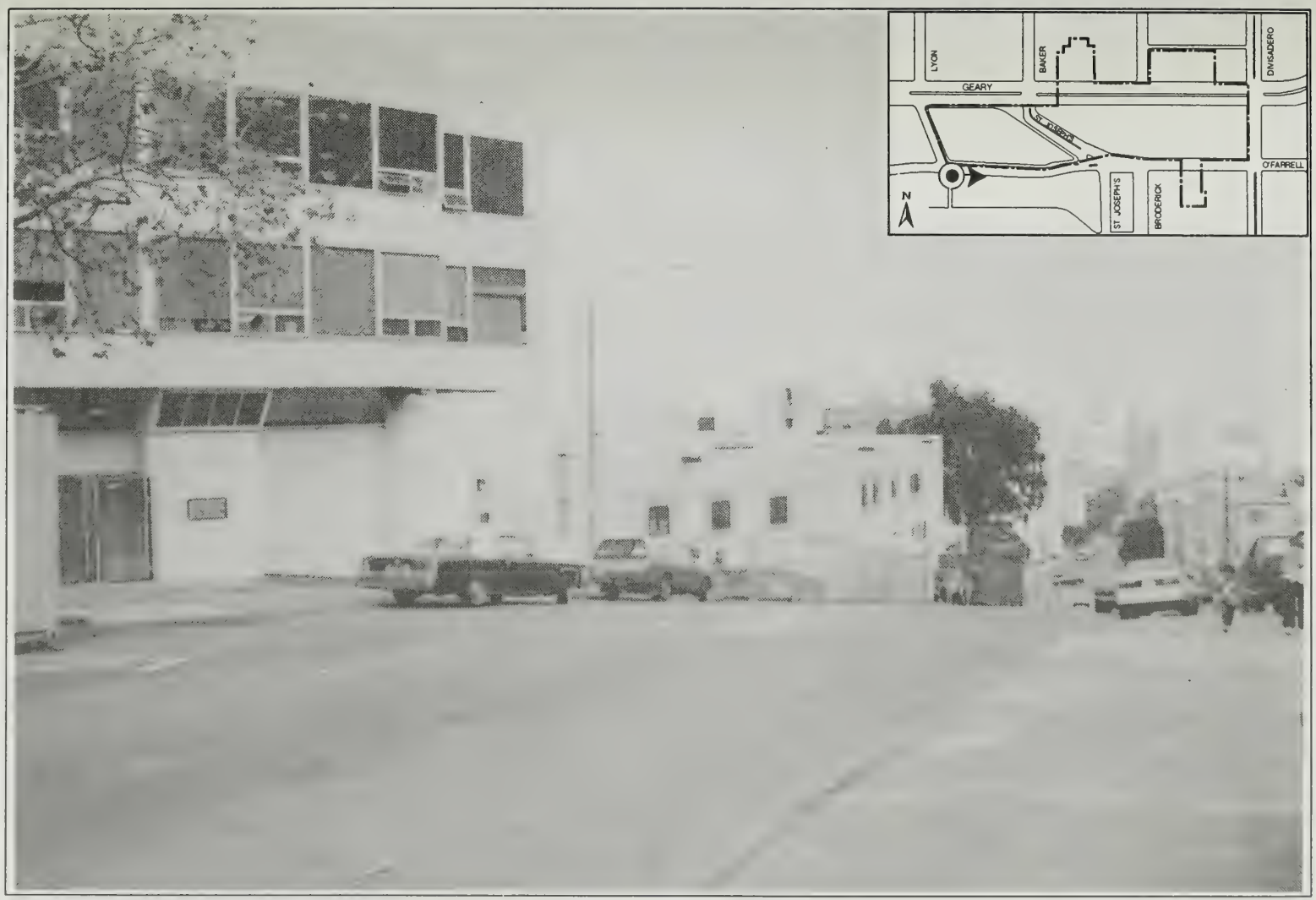
Most of the small-scale residential buildings and rowhouses were built in the late 19th century. Many of the larger, multi-family buildings were constructed in the early- to mid-20th century. The buildings on Geary Boulevard and Divisadero Street are a mix of older, residential buildings that have been converted to commercial uses and newer retail or residential/retail buildings.

Between Lyon Street and Masonic Avenue, commercial and mixed-use buildings built out to the property line form a continuous street wall along the south side of Geary Boulevard. The block immediately west of the Hospital is now occupied by larger retail uses, such as Mervyn's, Toys-R-Us and Office Depot.

The most visually prominent buildings in the vicinity are six- to eight-story Kaiser buildings and the UCSF/Mt. Zion buildings. These buildings can be seen from all directions. The Kaiser buildings include the Kaiser Hospital at 2425 Geary Boulevard; 2200 O'Farrell Street, the 2190 O'Farrell Street and 2130 O'Farrell Street garages and 2350 Geary Boulevard. The UCSF/Mt. Zion medical buildings on the block bounded by Sutter Street, Post Street, Divisadero Street and Scott Street range up to eight stories. The six-story 1635 Divisadero Street outpatient services building at Post Street is about two blocks north of the Geary Campus. These buildings are substantially greater in height, bulk and massing than other buildings nearby. The building heights and massing do not provide a transition to adjacent smaller-scale buildings. This creates an abrupt effect, causing the buildings to stand out from the low-rise visual character in the immediate vicinity. Other large-scale buildings that are visually prominent at the short-range view include large churches, schools and multi-family apartment complexes. Many of these structures are located on corners and can be viewed from adjacent areas and intersections.

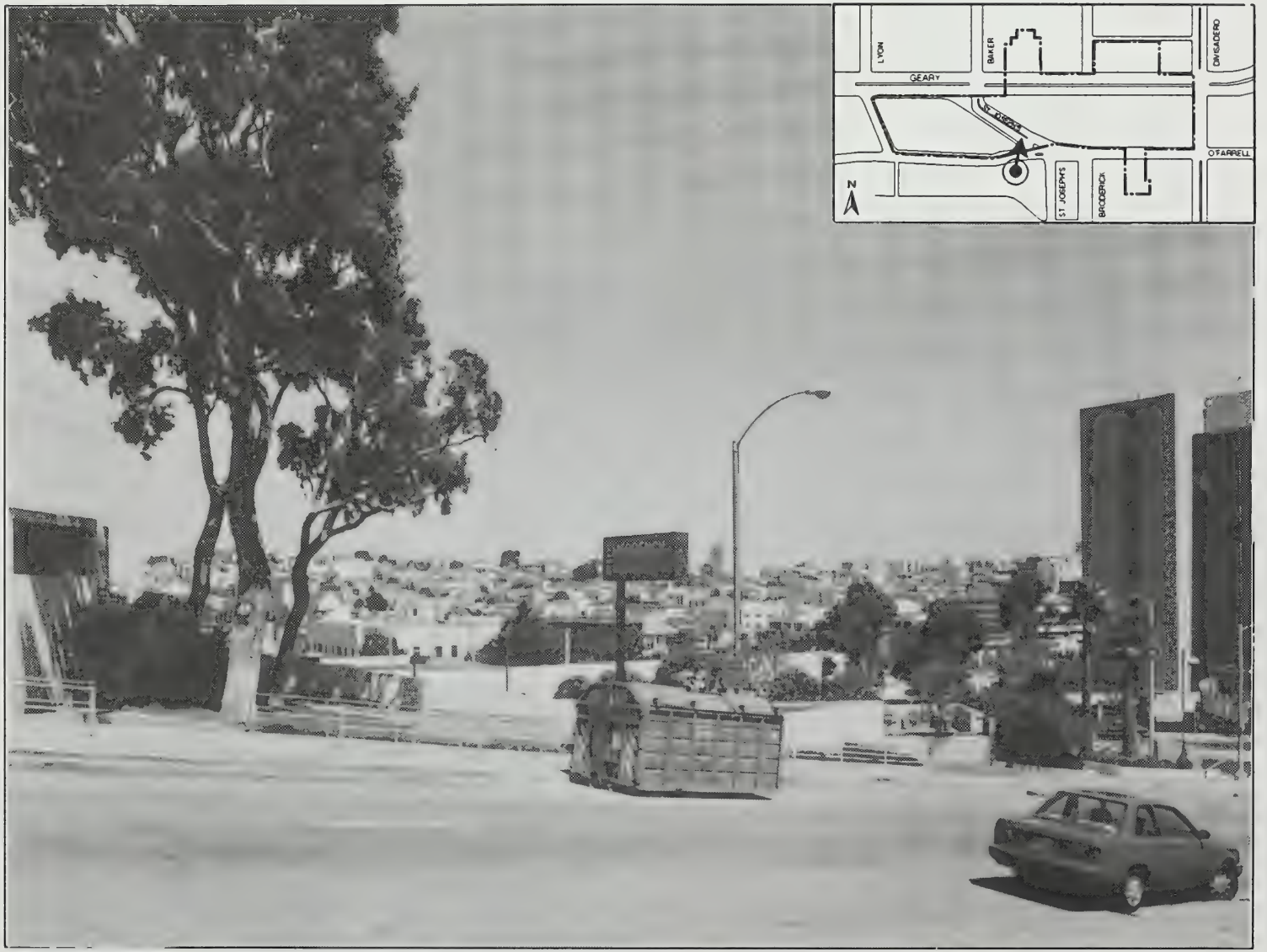
The width of Geary Boulevard and easterly slope provide views of downtown from the campus as well as short-range views to the north and south from the roadway corridor.

The Terra Vista Avenue area south of O'Farrell Street and the Geary Campus, contains two- to four-story residential buildings on hillside lots. Many of the buildings fronting Terra Vista have balconies or decks that overlook Kaiser Hospital and other areas to the north. Figure III.B.12 shows the view looking east down O'Farrell Street. Figure III.B.13, p. 136, shows the view looking north from O'Farrell Street, just above the Hospital.



SOURCE: EIP Associates

Figure III.B.12
O'Farrell Street Looking East

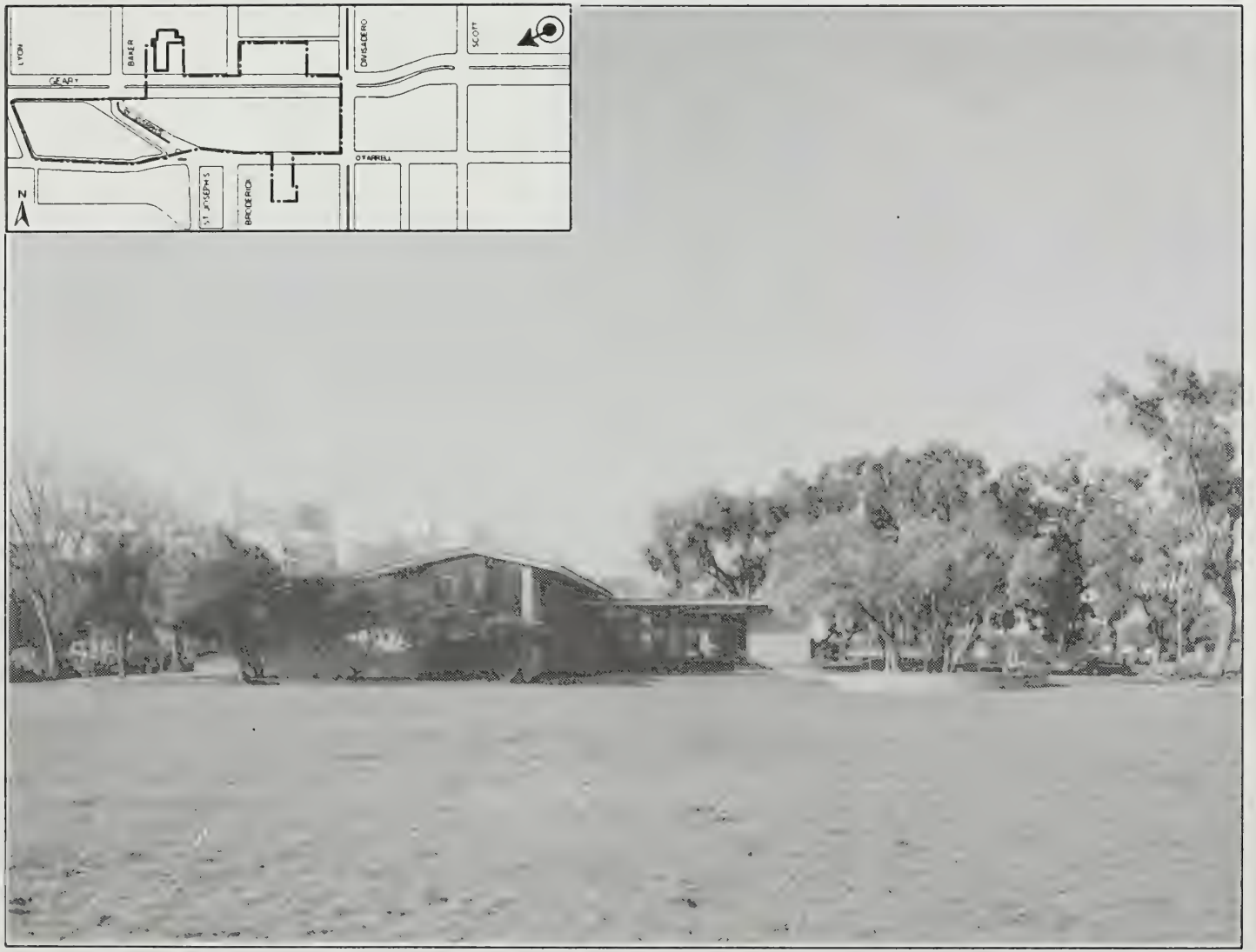


SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.13
O'Farrell Street Looking North

The only major public open space in the vicinity is the Hamilton Recreation Center on the block bounded by Geary Boulevard and Scott, Post and Steiner Streets, about one block northeast of the Geary Campus. At the northwest corner of Hamilton Recreation Center is a paved parking lot; at the southwest corner of Hamilton Recreation Center is the one-story Western Addition Branch Library. A narrow landscaped area borders the western property line of Hamilton Recreation Center. The remainder of Hamilton Recreation Center is an open play area for soccer and other activities. From medium- and long-range views, the existing Kaiser Geary Campus buildings are visible from Geary Boulevard east of Masonic Avenue, and west of Gough Street, and from streets to the north and north east in Pacific Heights and Presidio Heights. These are intermittent views, depending upon location of observers and intervening buildings. The buildings, particularly because of the location on a rising slope, can be viewed as far east as Hamilton Recreation Center. Figure III.B.14, p. 138, is the view from the center of the Hamilton Recreation Center playing fields. The Western Addition Branch Library is in the background. Kaiser buildings on the south side of Geary Boulevard can be seen beyond the library.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.B.14

Hamilton Recreation Center Playing Fields Looking West
Western Addition Library (foreground)
2130 and 2200 O'Farrell Street, 2425 Geary-Kaiser Hospital (background)

C. ARCHITECTURAL RESOURCES

Early development in the vicinity of the Kaiser Geary Campus dates from the 1860s and 1870s, in the post-Gold Rush period. The Calvary Cemetery occupied the western part of the campus on the south side of Geary Boulevard. The cemeteries were exhumed between 1912 and 1937. Other records indicate that surrounding blocks were developed primarily with residential uses by the 1880s. This character continued until Geary Boulevard and Divisadero Street assumed a more commercial character in the 20th century (see III.D. Cultural Resources, pp. 152 -157.).[1]

ARCHITECTURAL SURVEYS

The San Francisco Department of City Planning (DCP) conducted a citywide inventory of architecturally significant buildings. The 1976 survey rated 10,000 buildings on the basis of various factors including architectural significance, urban design context, and overall environmental significance. Approximately ten percent of the City's entire stock of buildings was given a rating ranging from a low of "0" to a high of "5". A rating of "0" is classified as "contributory" or "neutral", such that a building with a "0" rating would not by itself be considered architecturally significant. The total number of buildings rated "3" to "5" represents less than two percent of the City's entire building stock. The only rated building on the project site is 2280 Geary Boulevard/41-47 Garden Street, which was given a rating of "0".

In 1963, the Junior League of San Francisco undertook the first architectural and historical survey of San Francisco. Entitled *Here Today,* and published in 1968, the survey was adopted by the Board of Supervisors under Resolution No. 268-70. Inclusion in this survey is often the basis for review by the Landmarks Board of changes proposed to these properties. 2250 and 2256 Geary Street are included in the Appendix of *Here Today.* This appendix lists 2,000 buildings which were not considered important enough to be featured in the main text, but which the authors felt worthy of inclusion nonetheless. These inventories are the only architectural or historical surveys which cover the Kaiser Geary Campus and vicinity. None of the buildings on

the project site is designated a City landmark or is on any lists of federal or state historical buildings or places. See Table III.C.1 and Figure III.C.1, p. 142.

The National Register of Historic Places uses three criteria to evaluate a site's relationship to (A) events; (B) persons; or (C) design and construction, as well as a final criterion (D) for archeological considerations. The Landmarks Board has adopted a corresponding set of criteria. Both systems share common concepts and general terminology. Under Criterion A, properties can be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history. Under local designation procedures, this corresponds to an evaluation of History and Context and addresses such criteria as events and patterns of history.

The 2250 and 2256 Geary Boulevard buildings are among those in the area that represent the pattern of the earliest development that occurred on the site and in the general area. Major changes in the Geary/Divisadero neighborhood during the 1930s, 40s and 50s saw the existing context and patterns replaced with a larger-scale, post-war, suburban residential character. Although many of the nearby blocks contain concentrations of historic structures (see Figure III.C.1, p. 142) and are therefore able to convey a sense of the area's historical development patterns, the blocks included in the area of study lack such concentrations, resulting in an area that has a very limited ability to convey the historic context. On the Phase 1A site, only 2250 and 2256 Geary appear to represent the area's period of significance, and those two buildings have been architecturally compromised in their ability to convey any clear information about their origins and their original development period and pattern. These buildings have not been found individually eligible for listing on the city, state, or national registries. Today, the 2200 block of Geary is not particularly conspicuous or familiar in the context of the City as a whole, and lacks sufficient coherence to communicate the broad patterns of the area's development. The architectural background report prepared for this EIR evaluated these structures, finding that they did not meet the criteria for listing on the National Register of Historic Places.[2]

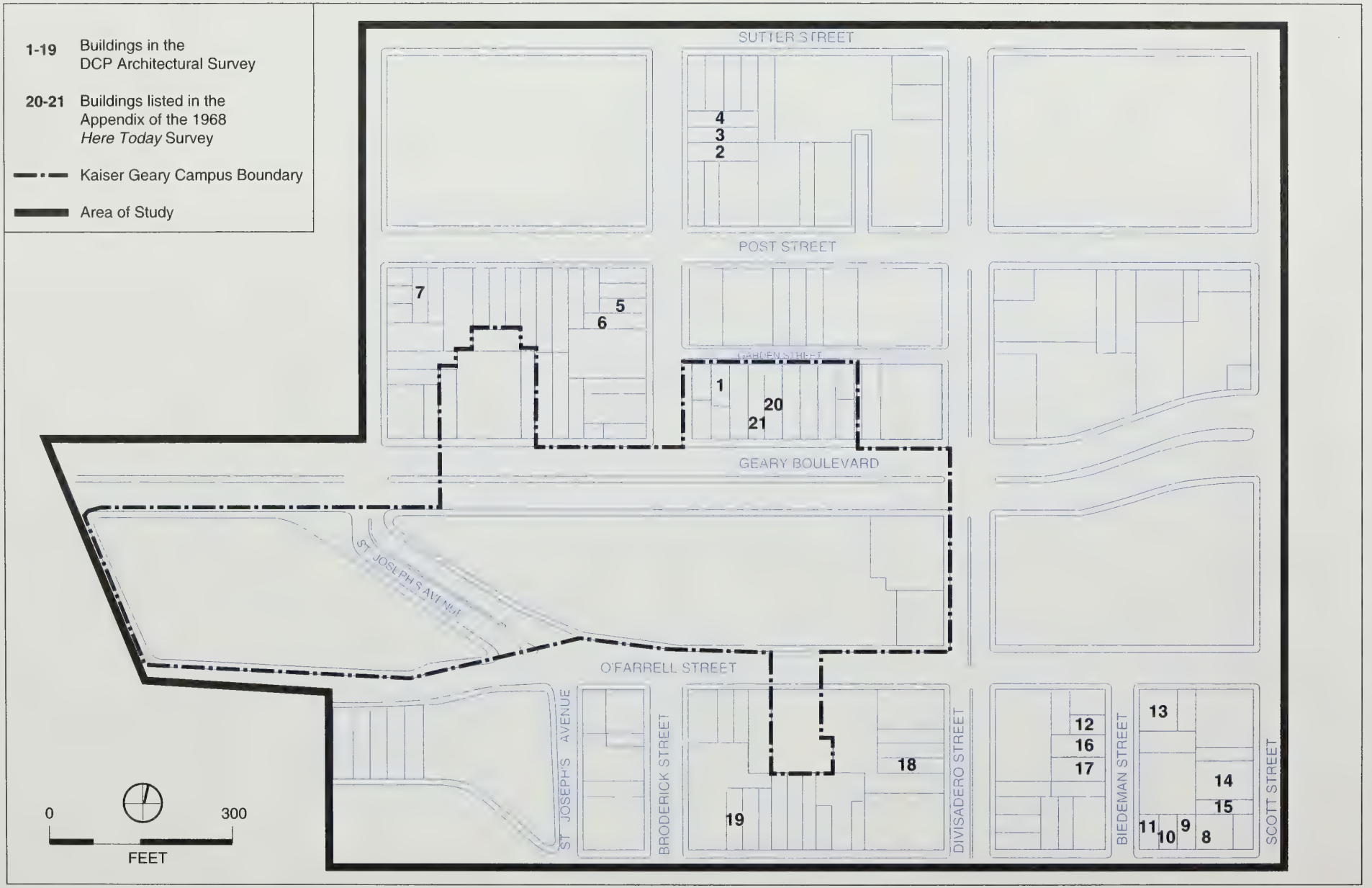
TABLE III.C.1: BUILDINGS LISTED ON SURVEYS WITHIN A ONE-BLOCK RADIUS OF THE KAISER GEARY CAMPUS

Assessor's Block	Map Code	Address	Existing Use	DCP Survey Summary Rating
On Project Site				
1079	1	41-47 Garden Street	Office	0
1079	20	2250 Geary Boulevard[1, 4]	Office	unrated
1075	21	2256 Geary Boulevard[1, 4]	Vacant	unrated
In Project Vicinity				
1076	2	1526-1530 Broderick Street	Residential	2
1076	3	1536 Broderick Street	Residential	3
1076	4	1540 and 1542 Broderick Street	Residential	2
1080	5	1449-1459 Broderick Street	Residential	1
1080	6	1443-1445 Broderick Street	Residential	2
1080	7	2479 and 2485 Post Street[4]	Residential	2
1100	8	1918 Ellis Street	Residential	3
1100	9	1926 Ellis Street	Residential	1
1100	10	1932-1936 Ellis Street	Residential	3
1100	11	1942 Ellis Street	Residential	2
1100	12	49-59 Biedeman Street[3]	Residential	3
1100	13	2049 O'Farrell Street	Residential	3
1100	14	1323, 1325, 1327 Scott Street	Residential	2
1100	15	1321 Scott Street[3]	Residential	2
1100	16	45-47 Biedeman Street[3]	Residential	3
1100	17	33-37 Biedeman Street[3]	Residential	2
1101	18	1335 Divisadero Street	Residential	2
1101	19	2074, 2076, 2078 Ellis Street	Residential	1

Notes:

1. This building is on the site proposed for Phase 1A/2290 Geary Boulevard.
2. 2280 Geary Boulevard was constructed as a separate building that was not rated in the 1976 DCP survey. In 1983, it was connected to 41-47 Garden Street, which was rated "0" in the 1976 DCP survey.
3. Listed on the National Register of Historical Places
4. Included in the Appendix of the *Here Today* Survey.

Source: San Francisco Department of City Planning 1976 Architectural Survey, and the National Register of Historic Places.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.C.1
Architectural Resources in the Project Vicinity

Under Criterion B, properties can be eligible for the National Register if they are associated with the lives of persons significant in our past. Under local designation procedures, this criterion compares to the Board's evaluation of history. The buildings on the project site are not associated with persons of exceptional importance to a local, state or national history.

Under Criterion C, properties can be eligible for the National Register if they embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction. Under local designation procedures, this corresponds to an evaluation of Architecture, components of which include architectural style, construction type, building age, architect, design quality and interior quality. For a building to be listed on either the local or the National Register it must qualify under at least one of the previous criteria, and it must demonstrate a minimum degree of architectural integrity - it must still be capable of conveying the information for which it was found eligible. The buildings on the project site fail to exhibit characteristics under this criterion in any of these categories that would qualify them for listing.

The buildings of the 2200 block of Geary lack sufficient integrity to qualify for listing. The Landmarks Boards integrity definitions are included here to aid the reader in understanding the integrity ratings for the buildings. These integrity definitions are paraphrased as follows:

- Excellent: No changes or very minor changes.
- Very Good: Ground floor remodeled, cornice removed, or minor alterations which do not destroy the overall character.
- Good: Overall character changed but recognizable through the removal of major parapet, alterations to upper floors, or gross alteration of any major element.
- Fair/Poor: Altered beyond recognition.

Substantial alterations to the buildings remaining in the 2200 block of Geary have seriously compromised their architectural integrity. Of the three buildings that have been listed in surveys, 2250 and 2256 Geary, and 41-47 Garden Avenue retain a sufficient degree of original architectural fabric to link them to their origins, but each has undergone substantial

modifications to its character-defining architectural properties, resulting in integrity ratings ranging from "Good" to "Very Good". Enough questions exist about the original appearance of these buildings to disqualify them from National Register listing based upon their relative lack of architectural integrity.

KAISER GEARY CAMPUS VICINITY EVALUATION[3]

Within a one- to two-block radius of the existing Geary Campus, the area bounded by Baker Street to the west, Sutter Street to the north, Scott Street to the east, and Ellis Street to the south, 20 buildings were listed in the DCP survey and two were listed in *Here Today* (see Table III.C.1, p. 141, and Figure III.C.1, p. 142).

The 22 listed buildings in the project vicinity are residential structures except for the 2280 Geary Boulevard (41-47 Garden Street) building on the Eden Property, which was converted to medical offices.

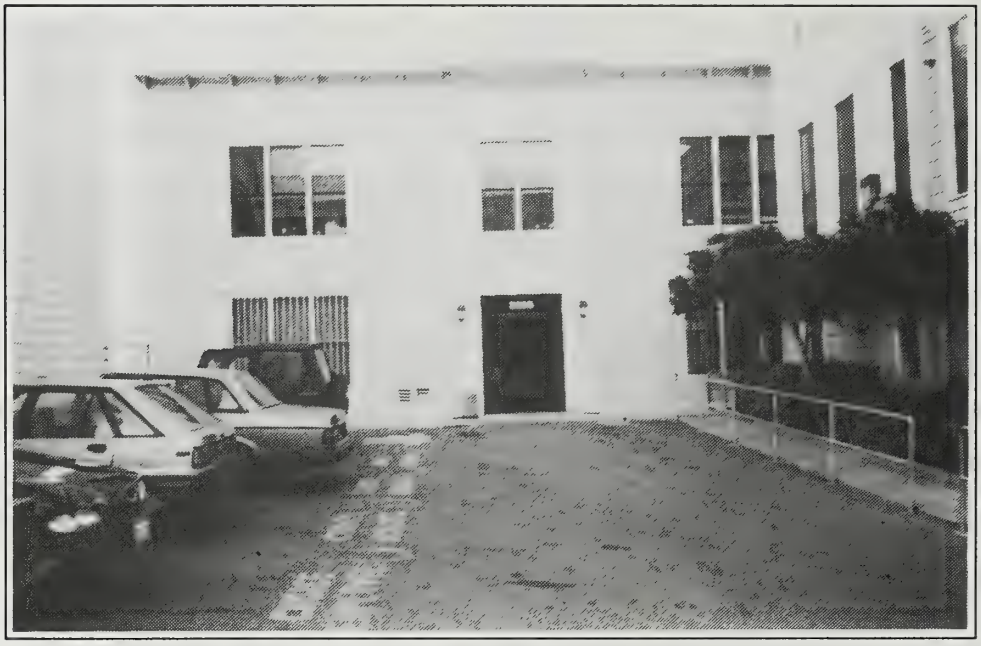
Ten of the rated buildings are concentrated in the Biedeman Street area on Assessor's Block 1100, one block southeast of the campus (listings 8-17 on Table III.C.1, p. 141, and Figure III.C.1, p. 142). In the early 1970s, the San Francisco Redevelopment Agency and the Foundation for San Francisco's Architectural Heritage moved a number of architecturally significant buildings from various locations in the City to the Biedeman Street area.[4] The buildings at 49-59 Biedeman Street, 1321 Scott Street, 45-47 Biedeman Street, and 33-37 Biedeman Street (listings 12, 15, 16, and 17 on Table III.C.1, p. 141, and Figure III.C.1, p. 142) in the Biedeman Street area, are listed on the National Register of Historic Places. The nine remaining listed buildings are dispersed throughout the blocks surrounding the campus. None of the buildings in the Kaiser Geary Campus vicinity have been designated as City landmarks, or are located in city-, state-, or nationally designated historic districts.[5]

KAISER GEARY CAMPUS

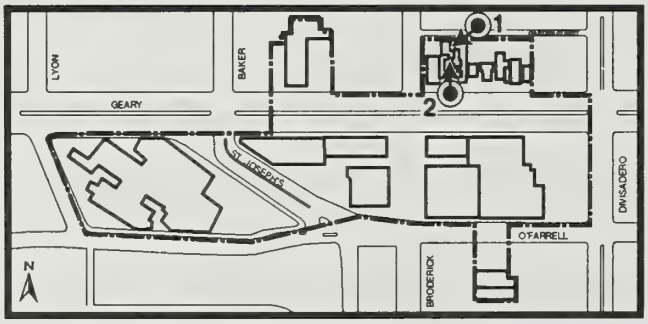
Eden Property

Of the 20 buildings on the DCP survey, one is on the Eden Property at 41-47 Garden Street (see View 1 on Figure III.C.2). The building was built in 1876 as four apartment units. It is now used as Kaiser offices with the entrance at 2280 Geary Boulevard. The three-story, 41-47 Garden Street building is of a Flat-Front Italianate style, which was common of the buildings built in the late-1800s. Brackets support the main cornice, which hangs over the panel molding on the upper facade. The two rows of sash windows on the facade of the building are aligned horizontally, each window with a flat window hood, also supported by brackets, hanging over a frieze. On the first floor of the Garden Street frontage, the end and center windows have deeper window hoods with larger, more elaborate brackets than the other windows. These more embellished windows were above the original entrances to the four apartments. In 1983, the 41-47 Garden Street Building was substantially renovated. The original building measured approximately 60 ft. by 30 ft. As part of this renovation, an 18-ft. addition was added to the southern end of the building, changing the depth from 30 ft. to 48 ft.; consequently, the entire facade of the 41-47 Garden Street Building facing Geary Boulevard was constructed in 1983 as part of 2280 Geary Boulevard. The ground level of the 41-47 Garden Street Building was reconstructed to accommodate eight parking spaces with four garage doors. In converting the ground-floor level to parking, the Garden Street facade was extensively altered. The original facade had three separate entrances, one at each end of the building and one serving two units in the middle of the facade. The entrances to the residential units and the windows above were framed as a single unit. After renovation, the ground-level entrances (except for the one located at the far west of the facade) and windows were replaced by four garage doors. On the third level, the windows at both ends and at the middle of the building were closed. Due to the dilapidated condition of the building in 1983, and to comply with seismic safety requirements, most of the Garden Street facades were replaced and new architectural details added to the windows and cornice. Consequently, little of the original facades remain. Similarly, the interior of the building was demolished and reconfigured for use as a medical office building (see View 2 on Figure III.C.2).

View 1: 41-47 Garden Street (Currently the Back Side of 2280 Geary Boulevard)



View 2: 2280 Geary Boulevard (Formerly the Back Side of 41-47 Garden Street)



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.C.2

41-47 Garden Street/2280 Geary Boulevard

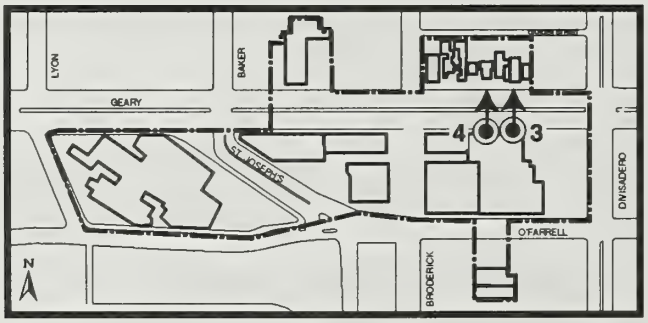
The 41-47 Garden Street building was given a DCP survey summary rating of "0". The building was included in the survey primarily because it was considered an example of a rare or unusual style or design in the area. The building was given a rating of "0" for the physical condition of its facade and for the overall architectural quality of the building.
No other buildings on any of the project blocks of the Kaiser Geary Campus is listed in the 1976 inventory.[6]

Also on the Eden Property are the 2250 Geary Boulevard and 2256 Geary Boulevard buildings, listed in *Here Today*. These two buildings are not included in the 1976 survey. The Landmarks Preservation Advisory Board was requested, in 1993 to prepare a case report on the 2250 and 2256 Geary Boulevard buildings. No report was undertaken.[7] These two buildings, along with the 2280 Geary Boulevard (41-47 Garden Street) building, may be among the oldest buildings in project site vicinity. The building at 2250 Geary Boulevard was built in 1870 in the simplified Victorian Gothic style, typical of the period between 1860 and 1890, which emphasizes the cross gables. The building has both rectangular and arched sash windows. Outside the upper floor window facing Geary Boulevard is a bracketed portico with a turned portico balustrade. The two windows below the portico have keystones above them. The west side of the first floor has a large bay window (see View 3 on Figure III.C.3). This building has been added to three different times but is considered to maintain its overall character. The building is a good example of its type and style, and as a freestanding structure, is rare in a city of rowhouses.[8] The building is in poor condition and needs major structural improvements.[9] The 2250 Geary building is currently in use as office space.

The building at 2256 Geary Boulevard is a simplified, Victorian Gothic rowhouse that appears to date to about 1865. It has a main gable and two rows of sash windows. The windows of the upper floor have hood molding above them and bracketed porticos beneath them (see View 4 on Figure III.C.3). The windows of the lower floor bear remnants of window hoods, and the door also bears remnants of the a large hood. The style is rare, but not unique; similar examples may be found in such neighborhoods as the Haight-Ashbury and Noe Valley. Its overall character has been changed such that restoration would be conjectural. The building has been vacant since 1988, is in very poor condition, and is boarded up because it is structurally unsound.[10]

View 3: 2250 Geary Boulevard

View 4: 2256 Geary Boulevard



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.C.3
2250 Geary Boulevard and
2256 Geary Boulevard

None of the other existing buildings on the Eden Property, described below, are on the DCP inventory or in a Landmarks Preservation Advisory Board work program.

The 2292-2296 Geary Boulevard building is an early 20th Century apartment building with a bracketed main cornice, and both slanted and rounded sash bay windows. A small portion of this building is currently used by the owner as dental offices and the remaining portion of this building is vacant.

The 2270-2274 Geary Boulevard building appears to be a remodeled Stick-Style Italianate Victorian, dating from the late 1800s. The remodeling includes a stucco facade and red-tile roofing above the squared bay windows. The entrance is arched and very plain. The lower floor is used as commercial space, and the upper floor is residential.

The 2266 Geary Boulevard building is a remodeled building that borrows Italianate details in a modern form. It has a bracketed main cornice and panel moldings. The windows have plain hood moldings and bracketed porticos. The building is currently used as office space.

At 2242 Geary is a small, one-story, wood-sheathed restaurant. The building has little architectural detail.

The 2240 Geary Boulevard building appears to be a remodeled Flat-Front Italianate, with a stucco facade and red tile roofing above the rounded bay window and entrance hood. It has a bracketed main cornice and sash windows. The building is in fair condition and is currently used for commercial purposes.

The side walls and overall proportions of the 2232-2238 Geary Boulevard building appear to have originally been those of a Flat-Front Italianate; however, the street facade of the building has been substantially altered, limiting evidence of its style or age. The facade of the building has been stuccoed. The ground floor of the building is a restaurant, while the upper floors are residential units. Two buildings on the Eden Property face Garden Street. At 25 Garden Street is a one-story garage that is occupied by Mac's Glass Company. At 11-19 Garden Street is an

apartment building. Its shape suggests that the building may have been of a Flat-Front Italianate style; however, any Victorian characteristics and details have been removed and replaced with wood shingles.

None of the structures on the Phase 1A site is eligible for the National Register of Historic Places. The two oldest structures on the site, 2250 Geary Boulevard and 2256 Geary Boulevard, represent the earliest pattern of development in the general area. As discussed in Section III.D. Cultural Resources, p. 154, by the 1870s, Calvary Cemetery occupied portions of the Kaiser Geary Campus site on Assessor's Block 1098 south of Geary Boulevard. Early residents of the two structures appear to have been associated with Calvary Cemetery. James Largan, pastor of Holy Cross Church in Calvary Cemetery, resided at 2250 Geary Boulevard from 1876 to 1878. Fr. Largan was also a boarder at 2256 Geary Boulevard from 1871 to 1876. The owners of 2256 Geary Boulevard operated florist shops in downtown San Francisco and maintained a plant nursery north of Garden Street at Post and Broderick Streets. The architecture of 2250 Geary Boulevard, although altered over the years, is considered a good example of a free-standing residence, rare in a city of rowhouses. The 2256 Geary Boulevard building also represents a relatively rare front-gabled rowhouse; its overall condition is considered poor.[11]

Existing Kaiser Geary Campus Buildings

The existing Kaiser Geary Campus buildings were built during the 20th century. None is rated in any surveys of architectural or historic buildings, including the 1976 DCP survey. None is located in local or national historic districts, or listed on any state or national historic registers. The Kaiser Hospital was built in 1954, with later additions; the north wing of the hospital was completed in 1992. The 2200 O'Farrell Street outpatient service building was built in 1964. The 2190 and 2130 O'Farrell garages were completed in 1966 and 1991, respectively. The 1401-17 Divisadero Street building, a three-story building with commercial uses on the ground floor and apartments on the second and third floors, was built during the 1930s. The 350 St. Joseph's Avenue building was built for a car dealership in the 1960s. Kaiser purchased the

building and completed renovations in 1977. The 2350 Geary Boulevard building was built in 1955. The 2139 O'Farrell Street building was built in 1960.

NOTES - Architectural Resources

1. Archeo-Tec Inc., *Archival Cultural Resources Evaluation of the Kaiser Institutional Master Plan Environmental Impact Report, City and County of San Francisco*, September 1995.

2. Architectural Resources Background Report - Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates, Architects, September 1996.

3. Architectural Resources Background Report - Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates, Architects, September 1996.

4. Donald Andreini, The Foundation for San Francisco's Architectural Heritage, telephone conversation, May 9, 1996.

5. Donald Andreini, The Foundation for San Francisco's Architectural Heritage, telephone conversation, May 9, 1996.

6. San Francisco Department of City Planning, 1976 Architectural Survey.

7. Architectural Resources Background Report - Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates, Architects, September 1996.

8. Architectural Resources Background Report - Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates, Architects, September 1996.

9. *Existing Conditions Report for 2250 and 2256 Geary Boulevard*, prepared by Transatlantic Construction for The Eden Group, April 12, 1996.

10. *Existing Conditions Report for 2250 and 2256 Geary Boulevard*, prepared by Transatlantic Construction for The Eden Group, April 12, 1996.

11. Architectural Resources Background Report - Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates, Architects, September 1996.

D. CULTURAL RESOURCES

Archival research conducted for the cultural resource study had three primary objectives: 1) to describe relevant data pertaining to the history and development of the study area, 2) to determine the possibility of the existence of prehistoric/proto historic and/or historic period cultural resources of demonstrated or potential significance, and 3) to formulate and recommend appropriate measures and procedures to mitigate any adverse impacts of the proposed construction on potentially significant cultural resources.[1]

No prehistoric or protohistoric period (circa 5000 B.C. through 1775 A.D.) cultural resources (such as hearth stones, shell mounds or burial sites that would increase our understanding of the contemporary way of life) have been recorded in the study area encompassing the Kaiser Geary Campus. The study area has not previously been the object of a formal archaeological survey.[2] No prehistoric or protohistoric cultural resources were encountered during the archaeological evaluation conducted for the Kaiser San Francisco Medical Center North Wing Addition Project in 1988 and 1989, immediately to the west of the study area.[3]

The presence of several deeply buried prehistoric deposits in some of the most intensively developed parts of San Francisco points to the possibility that other unrecorded archaeological deposits of similar, or earlier age, may exist in various places throughout the City, including the region in and around the Kaiser Geary Campus study area.[4] The subject area may have been situated within an interface of ecological communities (i.e., the Bay, Lone Mountain) favorable for Native American habitation, so the possibility exists that there may be prehistoric archaeological deposits.

No development, occupation or topographic modification occurred in the immediate vicinity of the study area during the Spanish/Mexican and Early American periods (1775 through 1848). Therefore, there is relatively little chance of encountering significant, or potentially significant remains (such as tools, building materials or household refuse) from these periods. The economic and social activity of the region was centered at a considerable distance from the study area, first

in the vicinities of Mission Dolores and the Presidio, then, after 1838, in and around Yerba Buena Cove (the modern Financial District).

During the Gold Rush period (1849 through 1859), the shortage of available real estate, coupled with the enormous cost of property near the center of town, caused San Francisco to expand into the hills west of the modern Financial District. However, the 1852, 1853, 1857 and 1859 U.S. Coast and Geodetic Survey maps of San Francisco show no development (paths, roads or structures) in the vicinity of the study area. By 1859, Geary Boulevard had been extended west as far as Larkin Street, about 15 city blocks from the study area. The nearest buildings (presumably residences rather than commercial establishments) were at least two city blocks to the south.

In the Late 19th Century period (1860 through 1906), land in the vicinity of the study area began to be developed. H.G. Langley's *San Francisco City Directory* for the year 1862 shows Divisadero Street as the western edge of the incorporated City of San Francisco, and shows the study area situated on the slope of Lone Mountain. Most of the study area (Assessor's Block 1098) was situated immediately east of an area labeled "Catholic Cemetery"; the map does not provide sufficient detail to determine the exact dimensions of the cemetery.

The 1869 U.S. Coast and Geodetic Survey *Map of San Francisco* shows that the study area had not changed much by the late 1860s. The area labeled "Catholic Cemetery" on Langley's 1862 map had been changed to "Calvary Cemetery" by 1869. Geary Boulevard had been extended through the study area to the Cliff House. However, systematic grading activity in the study area did not occur until some point in the 1870s.

According to the *Official Street Grades of the City and County of San Francisco – Comprising All Grades Established to January 1900*, issued by the San Francisco Board of Supervisors in 1881, the intersection of Geary Boulevard and Broderick Street was to be graded to an elevation of +151 ft. San Francisco Datum (+151 ft. SFD), Geary and Divisadero to +127 ft. SFD, O'Farrell and Broderick to +171 ft. SFD, and O'Farrell and Divisadero to +141 ft. SFD.[5] These City specifications indicate that only a limited amount of cutting and filling was needed in the study

area. Consequently, the pre-existing subsoils would have been little disturbed, preserving any buried artifacts the area may have contained. Most of the grading took place during the 1870s, and was not extensive.

For most of the early 1870s the study area consisted of comfortable, widely-spaced one- and two-story residential structures, primarily of wood-frame construction, and the Calvary Cemetery. A good deal of open space separated the buildings.[6]

By 1887, what is currently Assessor's Block 1098 (bounded by Geary Boulevard, Divisadero Street, O'Farrell Street, and St. Joseph's Avenue) was moderately developed. The western half of the parcel occupied by 350 St. Joseph's Avenue (Phase 2B site), at the western edge of Assessor's Block 1098, was occupied by the old Calvary Cemetery. The eastern half of the 350 St. Joseph's Avenue parcel was occupied by several one- and two-story wood-frame residential buildings and three stables. A large portion of Assessor's Block 1098 between Broderick and Divisadero streets was vacant. Assessor's Block 1079 (Phase 1A site) was occupied by several one- and two-story wood-frame residential buildings. Assessor's Block 1101, Lot 22 (2139 O'Farrell Street/Phase 1B site) was occupied by scattered one- and two-story wood-frame residences, a wagon shed, and a frame structure labeled "S.F.F.D.," a station of the San Francisco Fire Department. Assessor's Block 1102 (between St. Joseph's and Broderick, adjacent to the Phase 1B and Phase 2C sites) was open space.[7]

By 1894, Assessor's Block 1098 was divided into numerous individually owned small lots. Calvary Cemetery still occupied the western portion of the 350 St. Joseph's Avenue parcel. The site of the proposed Phase 1B building (in Assessor's Block 1079) was divided into eight individually owned parcels. The 2139 O'Farrell Street site was the property of the City and County of San Francisco. Adjacent properties were individually owned, and substantial portions of Assessor's Block 1102 remained vacant.[8]

There were few changes in the study area between 1887, 1893, and 1899. The only notable change was that the 2139 O'Farrell Street (Phase 1B) site, labeled "S.F.F.D." in 1887 and 1893, was labeled "O'Farrell Street Police Station" by 1899.[9]

Relatively little new development or demographic change took place in the study area between the early 1890s and the great earthquake and fire of 1906, although a few of the larger lots had been subdivided. In April 1906, conditions were basically the same as in 1899 and 1894.[10] The exact nature and extent of any earthquake damage in the study area cannot be determined. However in October 1906 the lot divisions and ownership within these blocks remained virtually the same as they had been before the earthquake.[11]

By 1913, the former residential nature of Assessor's Block 1098 had changed to mixed residential and commercial uses. The old Calvary Cemetery was still in place near the western periphery of the study area. St. Joseph's Avenue had been opened and numerous two-story wood-frame dwellings constructed. The eastern periphery of Block 1098 was occupied by various businesses, including a hardware and plumbing store, upholstery shop, furniture finishing shop, cleaning and dying operation, and a restaurant.[12] The Eden Property (Phase 1A site) and the 2139 O'Farrell (Phase 1B site) were still occupied mostly by one- and two-story wood-frame residential buildings. The O'Farrell Street Police Station was replaced by a structure devoted to "Hay, Wood and Coal."

The study area became increasingly commercial as the 20th century progressed. During the 1930s, the San Francisco Board of Supervisors enacted an ordinance which mandated the removal of all cemeteries from the City. The removal of the cemeteries had been a source of great controversy which lasted for almost three decades. All of San Francisco's graveyards, including the old Calvary Cemetery, eventually were removed to new locations outside of the City. Several human remains from 19th-century cemeteries have been discovered in San Francisco during 20th-century construction. By the 1940s, the project vicinity had assumed demographic and architectural characteristics essentially the same as those seen today.

Based on the previous archaeological investigations undertaken in the project areas such artifacts as engraved tombstones, grave markers, statuary, coffins, and perhaps human burials may exist in the vicinity of the old cemetery. Architectural remains, trash pits, filled-in wells, and the remnants of privy vaults may exist in the vicinity of the late-nineteenth to mid-twentieth century buildings on the north side of Geary Boulevard. Trash pits, wells and vaults often contain items

such as tools, pottery, clothing and coins which further our understanding of family and community relationships during earlier historic periods.

NOTES - Cultural Resources

1. Archeo-Tec, *Archival Cultural Resources Evaluation for the Kaiser Institutional Master Plan Environmental Impact Report, City and County of San Francisco, California,* October 6, 1995. A copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

2. Systematic review of the records on file at the California Archaeological Inventory's Northwest Information Center, and at the Archaeological Research Facility of the University of California, Berkeley. Archeo-Tec, 1995.

3. Archeo-Tec, *Archival Cultural Resources Evaluation of the Proposed Kaiser Permanente Medical Center North Wing Addition and Parking Garage Project, San Francisco, California*, 1988. Cited in Archeo-Tec, 1995: a copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

   (b) Archeo-Tec, *San Francisco Medical Center Hospital North Addition Project: Pre-construction Archaeological Testing Program*, 1989. Cited in Archeo-Tec, 1995: a copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

4. (a) Kelly, R.E., *Archaeological Resources in the Golden Gate National Recreation Area*, National Park Service, San Francisco, 1976.

   (b) Olmsted, R., N. Olmsted, A. G. Pastron and J. Prichett, *Yerba Buena Center: Report on Historical Cultural Resources,* 1979. Cited in Archeo-Tec, 1995: a copy of this unpublished report is on file at the San Francisco Redevelopment Agency.

   (c) Pastron, A. G., *Yerba Buena Convention Center: Pre-construction Archaeological Testing Program*, 1978. Cited in Archeo-tec, 1995: a copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

5. San Francisco Datum is 8.66 ft. above mean sea level.

6. Currier and Ives of New York, *Birdseye View of San Francisco, 1878*, cited in Olmsted, R., N. Olmsted, and A. G. Pastron, *San Francisco Waterfront: Report on Historical Cultural Resources*, published by the San Francisco Wastewater Management Program, 1977, Plate 4.

7. Sanborn Insurance Company Map of San Francisco, 1887.

8. Alsip, Edwin K. & Co., *Handy Block Book of San Francisco*, 1894.

9. Sanborn Insurance Company Map of San Francisco, 1899.

10. (a) Alsip, Edwin K. & Co., *Handy Block Book of San Francisco*, 1901.
(b) Alsip, Edwin K. & Co., *Handy Block Book of San Francisco*, April 1906.

11. Alsip, Edwin K. & Co., *Handy Block Book of San Francisco,* October 1906.

12. Sanborn Insurance Company Map of San Francisco, 1913.

E. SHADOWS AND WIND

SHADOWS

The Kaiser Geary Campus south of Geary Boulevard is occupied by buildings ranging in height from two to eight stories. The existing structures cast shadows on the streets and sidewalks in the project vicinity, and on privately owned open spaces. The Eden Property is occupied by two- and three-story buildings. These existing structures cast shadows on streets and sidewalks near the buildings, as well as parking areas and yards of nearby properties. The surrounding neighborhoods consist of a mix of residential and commercial uses. Hamilton Recreation Center, a City park, is situated about one block east of the Geary Campus, bounded by Scott Street, Geary Boulevard, Steiner Street and Post Street. The block occupied by Hamilton Recreation Center includes an active playing field area as well as the Western Addition Branch Public Library and parking lot located at the western end of the block.

San Francisco approved Proposition K, the Sunlight Ordinance in June 1984. Proposition K is implemented by Section 295 of the City Planning Code, and applies to new structures over 40 ft. in height that would cast shadows on properties under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission, except shadows cast only during the first hour after sunrise and the last hour before sunset. The code prohibits issuance of building permits for such structures unless the City Planning Commission, in consultation with the General Manager of the Recreation and Park Department and the Recreation and Park Commission, determines that such shadow impact is insignificant. Sunlight requirements under Section 295 of the City Planning Code for such regulated spaces in the site vicinity are discussed in IV.E. Shadows and Wind, pp. 331 - 335.

Shadow patterns for existing buildings and for the proposed buildings of both phases of the project are shown for 10 a.m., 12 noon, and 3 p.m. for three seasons: during winter and summer solstices, when the sun is at its lowest and highest, and during the spring equinox, when the sun is at its midpoint (Figures IV.E.1 - IV.E.24, pp. 302 -330). Conditions from June 21 through December 21 mirror the conditions from December 21 through June 21 (using solar time).

Conditions on the fall equinox, around September 21, would be similar to those on the spring equinox, around March 21. September 21 time and June 21 would be Pacific Daylight Time, advanced one hour from Pacific Standard Time in March. The analysis considers shadows cast on streets, sidewalks, pedestrian areas and open spaces.

WIND

Data from the U.S. Weather Service weather station atop the old Federal Building at 50 United Nations Plaza provide a good basic description of wind conditions in San Francisco.[1] It is important to consider, however, that significant variation in wind will occur across the City due to terrain effects and distortion of the wind by buildings.

Average wind speeds are greatest in the summer and least in the fall. Winds also exhibit a daily variation with the strongest winds occurring in the afternoon, and lightest winds occurring in the early morning. Winds in San Francisco are most frequently from the west to northwest directions, reflecting the persistence of sea breezes. Wind direction is most varied in the winter. The approach of winter storms often results in strong southerly winds, although the southerly winds are not as frequent as westerly winds. The strongest winds in San Francisco are typically from the south during the approach of a winter storm.[2]

The wind study indicates that existing winds range from 3 to 13 mph adjacent to the project site. Of 58 points that were measured for wind speed, 11 currently exceed the comfort wind criterion set forth in Sections 148 and 249.1 of the City Planning Code.[3] None of the points measured currently exceed the 26 mph hazard criterion in sections 148 and 249.1. Please see IV.E. Shadows and Wind, pp. 336 - 337, and Appendix D. Wind, pp. A.38 -A.42.

Factors Affecting Pedestrian Comfort

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result in increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four miles per hour (mph) have no noticeable effect on pedestrian comfort. Winds from four to eight mph are felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Wind speeds of 19 to 26 mph will be felt on the body. Wind speeds of 26 mph to 34 mph would result in umbrellas being used with difficulty, hair blown straight, difficulty in walking steadily, and unpleasant wind noise. Winds over 34 mph increase difficulty with balance and gusts can blow people over.[4]

Significance Criteria

Wind criteria specifically for the project vicinity have not been developed by the City. However, the City Planning Code establishes wind criteria for C-3 (Downtown Office) Districts under Section 148 of the City Planning Code and for the Rincon Hill area under Section 249.1 of the City Planning Code. While these standards within the Code are not applicable to the project because the Kaiser Geary Campus is not in downtown San Francisco or on Rincon Hill , the Section 148 standards have been selected as providing an appropriate methodology and criteria for analysis of wind effects.

Sections 148 and 249.1 of the City Planning Code sets comfort levels of 7 mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. In addition to comfort criteria the City Planning Code establishes a wind hazard criterion. The hazard criterion is set at an hourly averaged windspeed of 26 mph, which is not to be exceeded more than once during a year.

An increase in pedestrian-level winds that would cause the San Francisco wind hazard criterion to be exceeded is considered to represent a significant adverse impact.

NOTES - Shadows and Wind

1. National Climatic Center, *Summary of Meteorological Observations, Surface (SMOS),* Station 23234, Years 1945-1950, publication date unknown.

2. Null, E. Jan, *Climate of San Francisco*, NOAA Report No. NOAA-TM-NWS WR-126, 1978.

3. Wind criteria also have been established for the Rincon Hill Special Use District under Section 249.1. The criteria established in this section are the same as the criteria under Section 148.

4. Arens, Edward A., "Designing for an Acceptable Wind Environment", *Transportation Engineering Journal*, March 1981.

F. POPULATION, EMPLOYMENT, AND HOUSING

This section discusses existing conditions applicable to the analysis of population, employment, and housing: regulations, existing employment, population, and housing levels in the region, San Francisco, and on the project site.

EMPLOYMENT

San Francisco and the Region

Table IX.E.1, p. A.46, of Appendix E. Population, Employment, and Housing, presents data and projections developed by the Association of Bay Area Governments (ABAG) for 1980, 1995, 2000, and 2010 for the City and County of San Francisco and region from *Pro ections '96*, ABAG's compendium of data and projections that they update every two years. The main trends are summarized below.

Employment in the nine-county San Francisco Bay Area increased 19 percent or 490,000 jobs between 1980 and 1995, bringing total jobs to about three million. ABAG projects a 26 percent increase of approximately 800,000 jobs between 1995 and 2010 to a total of more than 3.8 million jobs.

San Francisco's share of regional employment is approximately 18 percent. San Francisco employment grew, and is projected to grow, more slowly than regional employment. The San Francisco economy added 14,400 jobs or 2.6 percent between 1980 and 1990, while it lost about 32,000 jobs during the recession of the early 1990s. Due to the recession, San Francisco's net loss in employment was 17,590 jobs between 1980 and 1995, an overall decline of 3 percent. ABAG projects employment growth of 17 percent in San Francisco over the 1995-2010 period with the addition of approximately 88,490 jobs to yield a total of 623,100 jobs by 2010. San Francisco's share of regional employment has declined and is projected to decline slightly from 22 percent in 1980 to 19 percent in 1995 to 16 percent by year 2010.

Kaiser Citywide Employment

Kaiser's Medical Center in San Francisco includes the Geary Campus, the French Campus, and off-site leased space.

Kaiser currently uses buildings at 4141 Geary and 450 Sixth Avenue at the French Campus to temporarily house outpatient operations. Off-campus leases include the following addresses: 425 Market Street, 601 Van Ness Street, 1635 Divisadero Street, 2580/90 Geary Boulevard, 2560 Geary Boulevard, 2107 O'Farrell Street, and 1201 Fillmore Street.

The Geary Campus contains both inpatient operations at the Hospital and outpatient services located in the other buildings. This section and the following section, Geary Campus Employment, p. 165, summarize employment related to the proposed project as illustrated in Table III.F.1.

As illustrated in Table III.F.1, Kaiser City-wide employment in March of 1995 totaled 1,922 jobs. About 76 percent of them were on the Geary Campus, 14 percent were at the French Campus, and 10 percent were in other leased space. Of this total employment, 21 percent were doctors or other licensed medical care professionals including medical residents (providers), 30 percent were unlicensed inpatient care workers in the hospital, 20 percent were unlicensed medical office related employees, 17 percent were unlicensed patient services related employees, 5 percent were support services employees, and 7 percent were managerial and administrative employees.[1]

Kaiser is using most of the leased off-campus locations to house functions related to Geary Campus operations but not located there due to the lack of space. Kaiser's 1,922 total City-wide jobs represent 0.36 percent share of San Francisco's 1995 employment (534,610 jobs).

TABLE III.F.1: EXISTING EMPLOYMENT[1] (1995)
Kaiser Medical Center, San Francisco

Type of Employment	City-wide Total		Geary Campus				Off-Geary Campus		
	Total	Share	Kaiser Hospital (Inpatient)	Kaiser Outpatient	Non Kaiser[2]	Subtotal	French	Leases	Subtotal
Kaiser Employment									
Providers[3]									
Doctors (MDs)	242	13%	23	165		188	24	30	54
NonMDs and Residents	170	9%	6	132		138	14	18	32
Non Providers[4]									
Inpatient	576	30%	576			576	0	0	0
Medical Office	382	20%		272		272	57	53	110
Patient Services	322	17%		160		160	94	68	162
Support Services	105	5%		77		77	28	0	28
Administrative	125	7%		57		57	43	25	68
Total Kaiser	**1,922**	**100%**	**605**	**863**		**1,468**	**260**	**194**	**454**
percent of Total	***100%***		***31%***	***45%***		***76%***	***14%***	***10%***	***24%***
Other Employment									
Medical/Related					3	3			
Retail/Commercial					12	12			
Office					41	41			
Restaurant					9	9			
Total Other					**65**	**65**			

Notes:
1. Data are as of the end of the first quarter 1995. Figures are rounded to the nearest tens, except for "other" employment. Rounding may lead to discrepancies in sums.
2. Most of this employment in enterprises other than Kaiser are on the Eden Property that would become Phase 1A/2290 Geary Boulevard. However, seven of the retail/commercial employees are located in businesses on the ground floor of 1401-17 Divisadero Street, the Pink Building, that would be demolished in Phase 1B and rebuilt as 1455 Divisadero in Phase 2A.
3. Providers are employees who hold licenses legally required to provide medical care, such as doctors, psychologists, registered nurses, or medical residents.
4. Nonproviders are Kaiser employees who support Kaiser providers with technical, management, administrative, or logistical functions.

Source: EIP Associates, based on data supplied by Kaiser Foundation Health Plan, Inc., and the Eden Group.

Geary Campus Employment

The Geary Campus supports both Kaiser employees and other employment in establishments located on the Eden Property (Phase 1A site) and in the ground-floor storefronts at 1401-17 Divisadero Street (Phase 2A site). Table III.F.1, p. 164, summarizes this employment.

There is a total of 63 jobs at a variety of establishments unrelated to Kaiser located on the Geary Campus. Seven of these jobs are located in the first floor storefronts of 1401-17 Divisadero Street; 58 of the jobs are located at the Eden Property (Phase 1A site). The only occupied commercial space at 1401-17 Divisadero is a grocery store. Of the 58 jobs on the Eden Property, three are associated with a dental practice, five are in commercial/retail establishments, 41 are in office-related establishments and nine are in two restaurants. Kaiser employment at the Geary Campus totals 1,468 jobs. This total is divided between hospital (inpatient) employment of 605 jobs (41 percent of the campus total), and nonhospital, outpatient and support services employment totaling 863 jobs (59 percent of the campus total). Due to space limitations at the Geary Campus, 454 outpatient services related jobs (24 percent Kaiser's total employment) must be housed off the Geary Campus (either at the French Campus or in off-site leases).

Residential Location

Employees of the San Francisco Kaiser Medical Center reside throughout the San Francisco Bay Area. The majority of Kaiser employees (54 percent) live in the City of San Francisco. The percentages of those Kaiser employees living in the East Bay, North Bay, and South Bay are similar at 15 percent, 13 percent, and 17 percent, respectively.[2]

HOUSING AND POPULATION

San Francisco and the Region

Table IX.E.1, p. A.46, of Appendix E. Population, Employment, and Housing, presents ABAG's data and projections for 1980, 1995, 2000, and 2010 for the City and County of San Francisco and region. San Francisco's share of regional residents and households has and will remain relatively constant at about 12 percent and 13 percent respectively. San Francisco's resident population and households have increased at a slower rate than that of the region. From 1980 to 1995 San Francisco residents increased 12 percent (81,000) and households increased 4 percent (112,500) to reach a total of 760,000 residents and 311,500 households by 1995. ABAG projects lower population growth and higher household growth between 1995 and 2010 than during the 1985-95 period. ABAG projects an increase of 5 percent in population (40,700 residents) and 7 percent in households (22,000) to reach a total of 800,000 residents and 333,000 households.

Kaiser Geary Campus

There are currently eight residential units at 11-19 Garden Street, 2232-28 Geary Boulevard, and 2270-74 Geary Boulevard on the Eden Property (Phase 1A site).[3]

Of the 21 units at 1401-17 Divisadero Street (Phase 2A site), 12 are studio apartments and nine are one bedroom apartments. All but two of the 21 units at 1401-17 Divisadero Street were occupied in March 1995. Only 12 residents remain on site as of June 1996.[4]

NOTES - Population, Employment, and Housing

1. a) John Osborne, Facilities Planner, Kaiser Foundation Health Plan, Inc., memorandum to Indrajit Obeysekere, June 22, 1995.

b) The following briefly describes each of these Kaiser employment types:

- *Providers* are employees holding licenses to provide direct patient care, such as M.D.s.
- *Nonprovider Medical Office Employees* work in doctors' offices as support staff for outpatient medical treatment, including secretaries and medical assistants.
- *Nonprovider* patient Services Employees provide and assist in providing other types of direct patient care, including health education medical advice, physical therapy, diagnostic and treatment services, and retail services (i.e., optical sales, pharmacy sales, etc.)
- *Nonprovider Support Service Employees* support all facility operations and provide public and staff amenities, including those who work in cafeterias, restaurants, and fitness facilities.
- *Nonprovider Administrative Office Employees* work in offices which support the operations of hospitals, health plan, and medical group services.

2. Korve Engineering Inc., "Residential Distribution of Kaiser Employees," August 24, 1995.

3. Lori Wider, Attorney for the Eden Group, letter, September 16, 1996.

4. From seller's rent rolls, April 1995. Alice Suet Yee Barkley, Attorney-at-Law for Kaiser Permanente, telephone conversation with Scott Edmondson, September 5, 1995.

G. TRANSPORTATION AND CIRCULATION

The section summarizes the findings of detailed analysis in the Transportation Study and appendices dated June, 1996, prepared for the Kaiser Geary Campus project by Korve Engineering. A copy of this Transportation Study is on file at the Department of City Planning.

ROADWAY SYSTEM

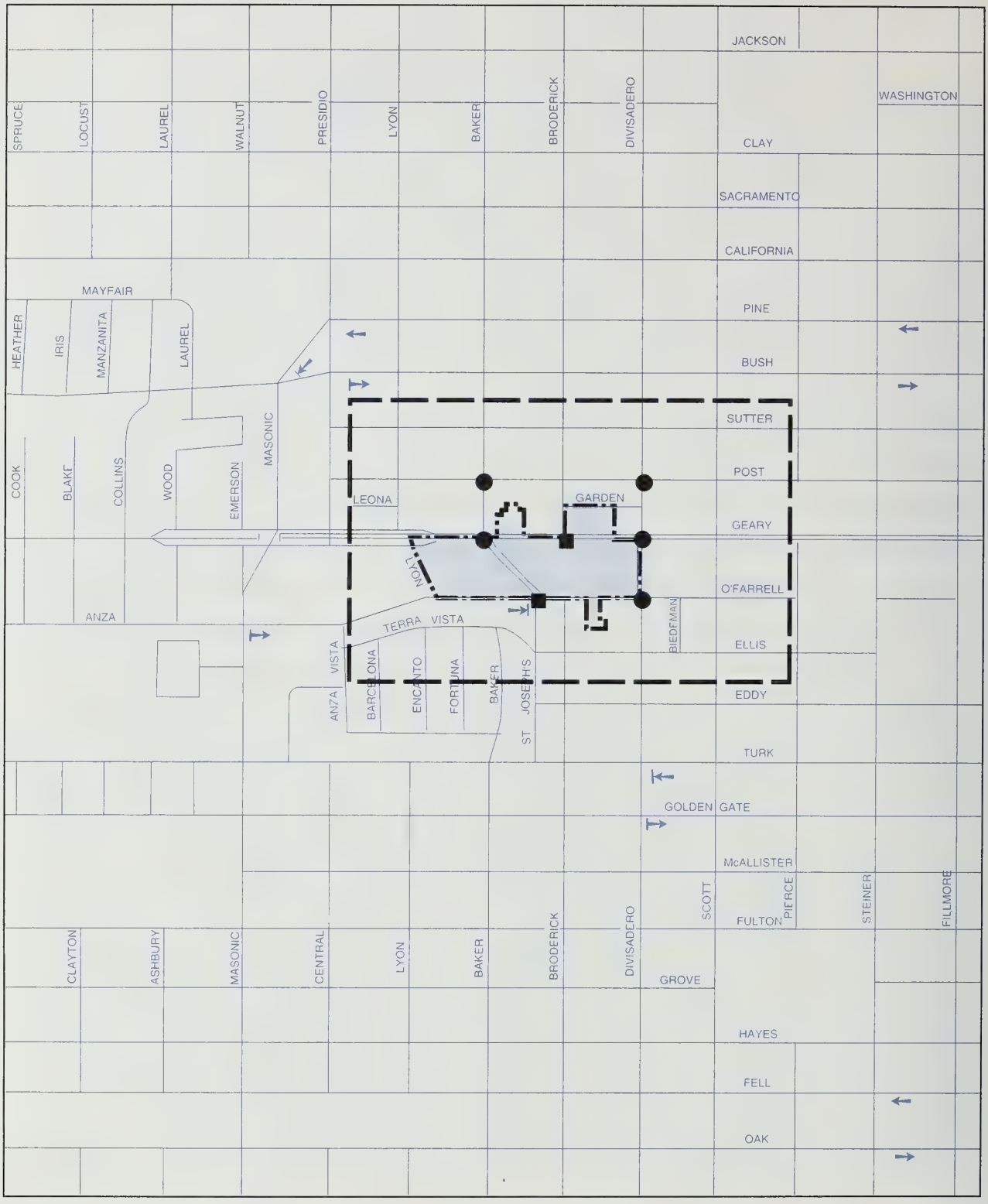
The proposed project is located in the Western Addition district in San Francisco, and is served by local streets and regional roadways. Regional access is provided by U.S. Highway 101 (U.S. 101), approximately one mile southeast from the project site, as well as by State Highway 1, via Park Presidio Boulevard to Geary Boulevard. Normally, access to the Geary Campus from U.S. 101 would be via an on-ramp at Oak Street/Laguna Street and an off-ramp at Fell Street/Laguna Street located at the end of the Central Freeway. Currently, the upper deck of the Central Freeway, between Mission and Fell Streets, is being demolished as part of a freeway replacement project. Demolition is expected to be completed by the end of 1996, and construction of the replacement freeway is scheduled for completion by the end of 1998.

Several roadways within the vicinity of the proposed project site are identified in the Transportation Element of the *San Francisco General Plan*[1] as major arterials, whose primary function is to link districts within the City and to distribute traffic to/from the freeways. Within the vicinity of the project site, the major arterials include Geary Boulevard, Divisadero Street, and Masonic Avenue. Geary Boulevard, a six-lane, two-way roadway dividing the project site is identified as a primary vehicular street, transit preferential street, and a proposed commuter bike route in the *San Francisco General Plan.* Divisadero Street is a four-lane, two-way roadway within the vicinity of the campus, and is identified as a transit preferential street in the *San Francisco General Plan.* Masonic Avenue is a four-lane, two-way roadway three blocks west of the campus, and is identified as a preferred commuter bike route in the *San Francisco General Plan.* O'Farrell Street and St. Joseph's Avenue are local streets which provide direct access to the existing Kaiser garages.

EXISTING TRAFFIC CONDITIONS

Intersections

Operating characteristics of intersections are described in terms of Level of Service (LOS), which is a measure of the ability of the intersection to accommodate traffic volumes. Intersection Level of Service ranges from LOS A, which indicates free-flow conditions with short delays, to LOS F, which indicates congested conditions with extremely long delays. LOS A, B, C, and D are considered excellent to satisfactory service levels, LOS E is undesirable, and LOS F conditions are unacceptable. Intersections were evaluated using the *1985 Highway Capacity Manual (HCM)* (Updated 1994) operations methodology for intersection delay. For signalized intersections, the capacity for each lane group approaching an intersection is determined; the LOS is then based on average stopped delay per vehicle for various movements within the intersection. For unsignalized intersections, the capacity of each movement of the intersection, is determined and the LOS is then based on the average total delay per vehicle for each movement. Table IX.F.1, p. A.59, and Table IX.F.2, p. A.61, of Appendix F. Transportation and Circulation present the LOS descriptions for signalized and unsignalized intersections. A LOS of D or better is normally considered an acceptable service level in San Francisco. Traffic conditions in the study area were characterized by evaluating weekday PM peak hour operations at seven intersections (see Figure III.G.1). (The PM peak hour is defined as the eight consecutive 15-minute periods within the PM peak period (4-6PM) when traffic volumes are the highest.) Operating conditions were evaluated for the intersections of Geary Boulevard/St. Joseph's Avenue, Geary Boulevard/ Broderick Street, Geary Boulevard/ Divisadero Street, O'Farrell Street/St. Joseph's Avenue, O'Farrell Street/Divisadero Street, Post Street/Baker Street, and Post Street/Divisadero Street. All seven study intersections currently operate at LOS B or better during the weekday PM peak hour conditions. (See Table III.G.1, p. 171, for the LOS and average vehicle delay for all seven study intersections under existing conditions.)



SOURCE: Korve Engineering

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.G.1
Project Study Area and Study Intersections

TABLE III.G.1: SUMMARY OF EXISTING INTERSECTION LEVEL OF SERVICE WEEKDAY PM PEAK HOUR

No.	Intersection	Control Type	Delay (sec/veh)	LOS
1	Geary Boulevard & St. Joseph's Avenue[1]	Signal	6.3	B
2	Geary Boulevard & Broderick Street	Two-Way STOP[2]	0.1[2]	B[2]
3	Geary Boulevard & Divisadero Street	Signal	14.6	B
4	O'Farrell Street & St. Joseph's Avenue	All-Way STOP	6.3	B
5	O'Farrell Street & Divisadero Street	Signal	12.2	B
6	Post Street & Baker Street	Signal	7.4	B
7	Post Street & Divisadero Street	Signal	7.2	B

Notes:
1. Subsequent to completing the transportation study, the northbound approach at this intersection was restriped to provide an exclusive left turn lane (May 1996). The delay and LOS presented in this table reflect the new configuration.
2. The delay presented for a Two-Way STOP controlled intersection is the overall intersection delay, while the LOS presented corresponds to the intersection movement which experiences the worst LOS.

Source: Korve Engineering, Inc.

Arterials

The San Francisco County Transportation Authority has been designated by the Board of Supervisors as the San Francisco Congestion Management Agency (CMA). The agency is responsible for developing a Congestion Management Program (CMP), as well as coordinating and monitoring its implementation. The San Francisco CMA has developed a county-wide CMP to annually monitor the City's transportation system performance and address congestion problems. The San Francisco CMA has established a CMP-designated network which includes all freeways, state highways, and principal arterials within the City. The CMP requires an

analysis of all CMP-designated roadways which could be impacted by project-related traffic. Level of Service E has been set by the CMP as an acceptable LOS for freeways, highways, and arterials within San Francisco. For the Kaiser Geary Campus Project, the two arterials that were analyzed are Geary Boulevard and Divisadero Street. Existing arterial conditions along Geary Boulevard, between Collins Street and Divisadero Street, and along Divisadero Street, between Sutter Street and Turk Street, were evaluated for the weekday PM peak hour operating conditions using the methodology outlined in the *1985 Highway Capacity Manual* (Updated 1994).

Appendix F, p. A.60, contains a brief discussion of the methodology. The capacity of an arterial is generally dominated by the capacity of its signalized intersections, and LOS is based on the average travel speed of all through-vehicles on the arterial. Arterial Level of Service ranges from LOS A, which indicates free flow operations at average travel speeds, to LOS F, which indicates extremely low travel speeds where intersection congestion is likely. Table IX.F.3, p. A.62 of Appendix F, presents the LOS descriptions for arterials.

All arterial segments analyzed currently operate at LOS D or better during weekday PM peak hour conditions. (See Table III.G.2, for the LOS and average travel speed for all arterial segments analyzed under existing conditions.)

PEDESTRIAN MOVEMENTS

Existing pedestrian conditions at the crosswalks of the intersections of Geary Boulevard/St. Joseph's Avenue and Geary Boulevard/Divisadero Street were evaluated for the weekday 15-minute PM peak hour conditions using the methodology outlined in the *1985 Highway Capacity Manual* (Updated 1994). The 15-minute PM peak hour is a 15-minute period, within the PM peak hour, when pedestrian volumes are the highest. Level of Service for crosswalks is based on the space available to pedestrians, the speed at which pedestrians can walk across the street, and

**TABLE III.G.2: CONGESTION MANAGEMENT PROGRAM (CMP)
ARTERIAL LEVEL OF SERVICE EXISTING (YEAR 1995) WEEKDAY PM PEAK HOUR**

Arterial Sections	Average Travel Speed (mph)	LOS[1]	Average Travel Speed (mph)	LOS[1]
Geary Boulevard between:	**Eastbound**		**Westbound**	
Collins Street and Baker Street	30.3	A	31.2	A
Baker Street and Divisadero Street	18.2	C	21.0	B
Overall	**25.1**	**A**	**27.1**	**A**
Divisadero Street between:	**Southbound**		**Northbound**	
Sutter Street and Geary Boulevard	9.9	D	12.6	D
Geary Boulevard and Turk Street	14.0	C	9.5	D
Overall	**12.2**	**D**	**10.4**	**D**

Note:
1. Level of Service determined from the *1985 Highway Capacity Manual, Chapter 11, Special Report 209.*

Source: Korve Engineering, Inc.

the amount of vehicles conflicting with pedestrians crossing the street. Pedestrian crosswalk Level of Service ranges from LOS A, which indicates free flow with little conflict with other pedestrians, to LOS F, which indicates restricted walking speeds with unavoidable contact with other pedestrians. Table IX.F.4, p. A.63, of Appendix F presents the LOS descriptions for pedestrian crosswalks.

All four crosswalks at both study intersections currently operate at LOS A conditions during the weekday 15-minute PM peak hour, which indicates that pedestrians are walking at unrestricted speeds with no conflicts with other pedestrians. (See Table III.G.3 for the LOS of the crosswalks under existing conditions.)

It should be noted that pedestrians cross Geary Boulevard at Broderick Street between Divisadero Street and Baker Street/St. Joseph's Avenue. While it may be unsafe to cross at this uncontrolled intersection, accident records on file with the Department of Parking and Traffic indicate that there have been no pedestrian-related accidents reported at this location within the past five years (i.e., year 1990 through 1995).

TABLE III.G.3: PEDESTRIAN CROSSWALK LEVEL OF SERVICE EXISTING (YEAR 1995) WEEKDAY PM PEAK HOUR

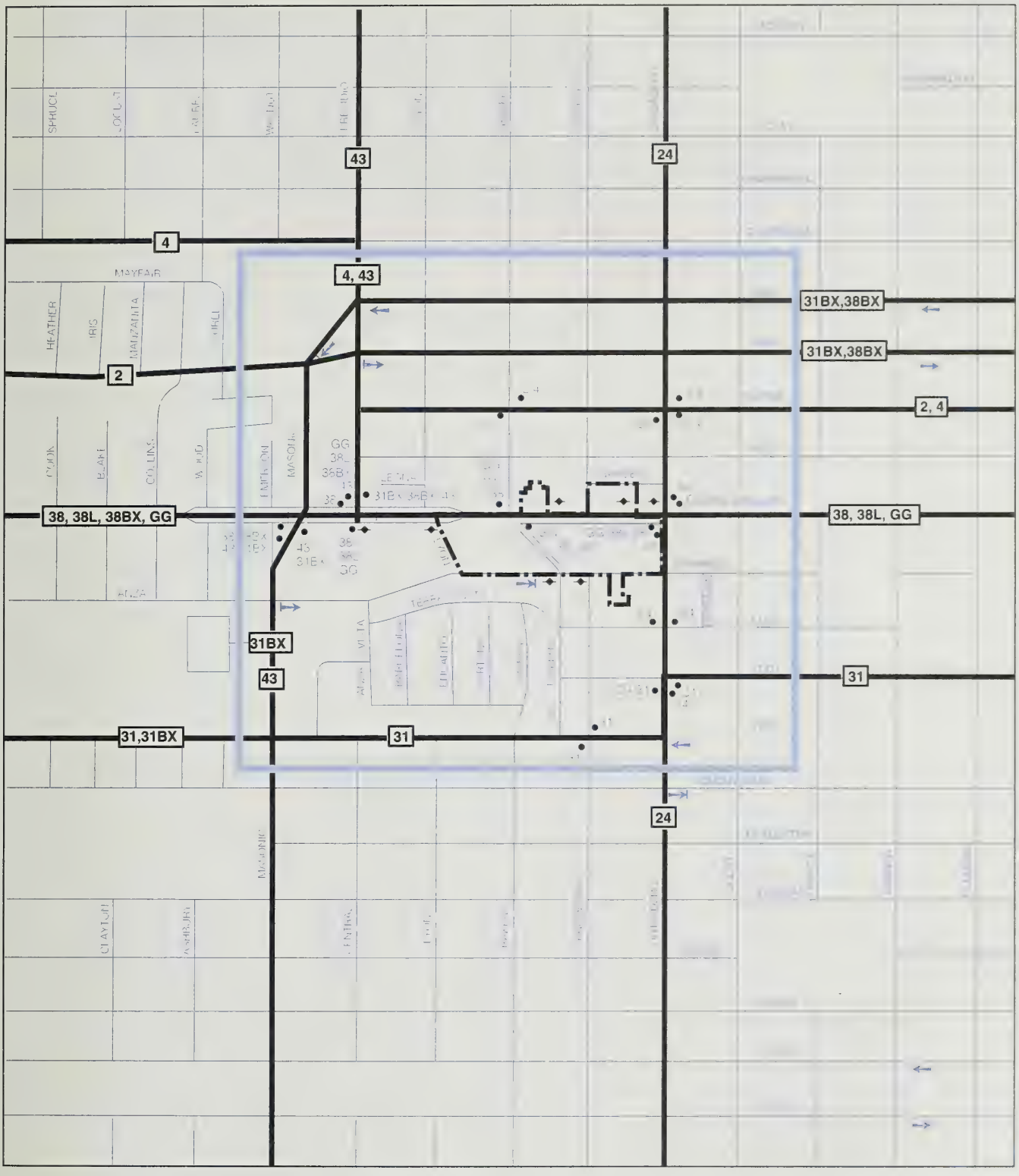
Intersection Name	Sq. Ft. Per Pedestrian	LOS[1]
Geary Boulevard/St. Joseph's Avenue:		
North Crosswalk	1,832	A
East Crosswalk	647	A
South Crosswalk	364	A
West Crosswalk	382	A
Geary Boulevard/Divisadero Street:		
North Crosswalk	678	A
East Crosswalk	433	A
South Crosswalk	805	A
West Crosswalk	260	A

Note:
1. Level of Service determined from the *1985 Highway Capacity Manual, Chapter 13, Special Report 209.*

Source: Korve Engineering, Inc.

TRANSIT

The Kaiser Geary Campus is well-served by public transit (see Figure III.G.2). In particular, nine San Francisco Municipal Railway (MUNI) bus lines and one Golden Gate Transit bus line provide service to the vicinity of the Geary Campus. (See Table III.G.4, p. 176, for transit line descriptions and peak load factors.) Regional transit services are also provided by Alameda-Contra Costa (AC) Transit, BART, ferry, SamTrans, and CalTrain, via the MUNI and Golden Gate Transit bus lines by transferring in the downtown area. The MUNI bus stops nearest the campus are located at the intersection of Geary Boulevard/ Divisadero Street which serve the MUNI Line #38-Geary, Line #38L-Geary Limited, and Line #24-Divisadero; and at the intersection of Geary Boulevard/Baker Street/St. Joseph's Avenue which serve the MUNI Line #38-Geary and Line #38L-Geary Limited. The Golden Gate Transit Line #50, which connects Novato in Marin County to the Transbay Terminal in San Francisco, provides service along Geary Boulevard with stops at Divisadero Street and St. Joseph's Avenue/Baker Street. As part of Kaiser's Transportation Demand Management services (see pp. 182 - 183), Kaiser operates



SOURCE: Korve Engineering

SAN FRANCISCO KAISER GEARY

Figure III.G.2
Existing Transit Network and Stop Locations in the Project Vicinity

TABLE III.G.4: TRANSIT ROUTES - DESCRIPTIONS AND PEAK LOAD FACTORS AT MAXIMUM LOAD POINT

Bus Line	Route Name	PM Peak Period Frequency (Minutes)	Capacity	Peak Load Factor Standard[1]	Peak Load Factor[3] At MLP
		MUNI Transit Lines			
2	Clement	10	40 Seats, 62 Persons	1.55	1.23
4	Sutter	10	50 Seats, 65 Persons	1.30	1.29
24	Divisadero	8	50 Seats, 65 Persons	1.30	1.03
31[2]	Balboa	8-9	56 Seats, 87 Persons	1.55	0.66
31BX	Balboa 'B' Express	10-13	40 Seats, 62 Persons	1.55	1.30
38	Geary	5-7	57 Seats, 88 Persons	1.55	1.53
38L	Geary Limited	4-7	40 Seats, 62 Persons	1.55	1.51
38 BX	Geary 'B' Express	6-9	40 Seats , 62 Persons	1.55	1.49
43	Masonic	10	40 Seats, 62 Persons	1.55	1.67
		Golden Gate Transit Line			
50	San Francisco/ Novato/Marin	30	39 Seats, 49 Persons	1.25	0.40

Notes:

1. MUNI Peak Load Factor Standard = theoretical maximum person load that can be accommodated divided by number of seats (as shown in Capacity column). The theoretical maximum person load is a policy load and does not necessarily represent the practical load or "crush" load that could be accommodated.
2. Until June, 1994, MUNI had been operating motor coaches on the #31 - Balboa Line. Since then, MUNI has converted this line to operate articulated electric trolley coaches. Load factor survey data for this line was only available from MUNI based on the motor coach capacity. The peak load factor was then adjusted to reflect the improved capacity available with the articulated electric trolley coaches.
3. Peak load factors represent the peak number of passengers divided by the number of seats. Peak load factors are based on ridership levels at the routes' maximum load points (MLP). They may not be representative of load factors at the proposed project site. Peak load factors that exceed the peak load factor standards are underlined.

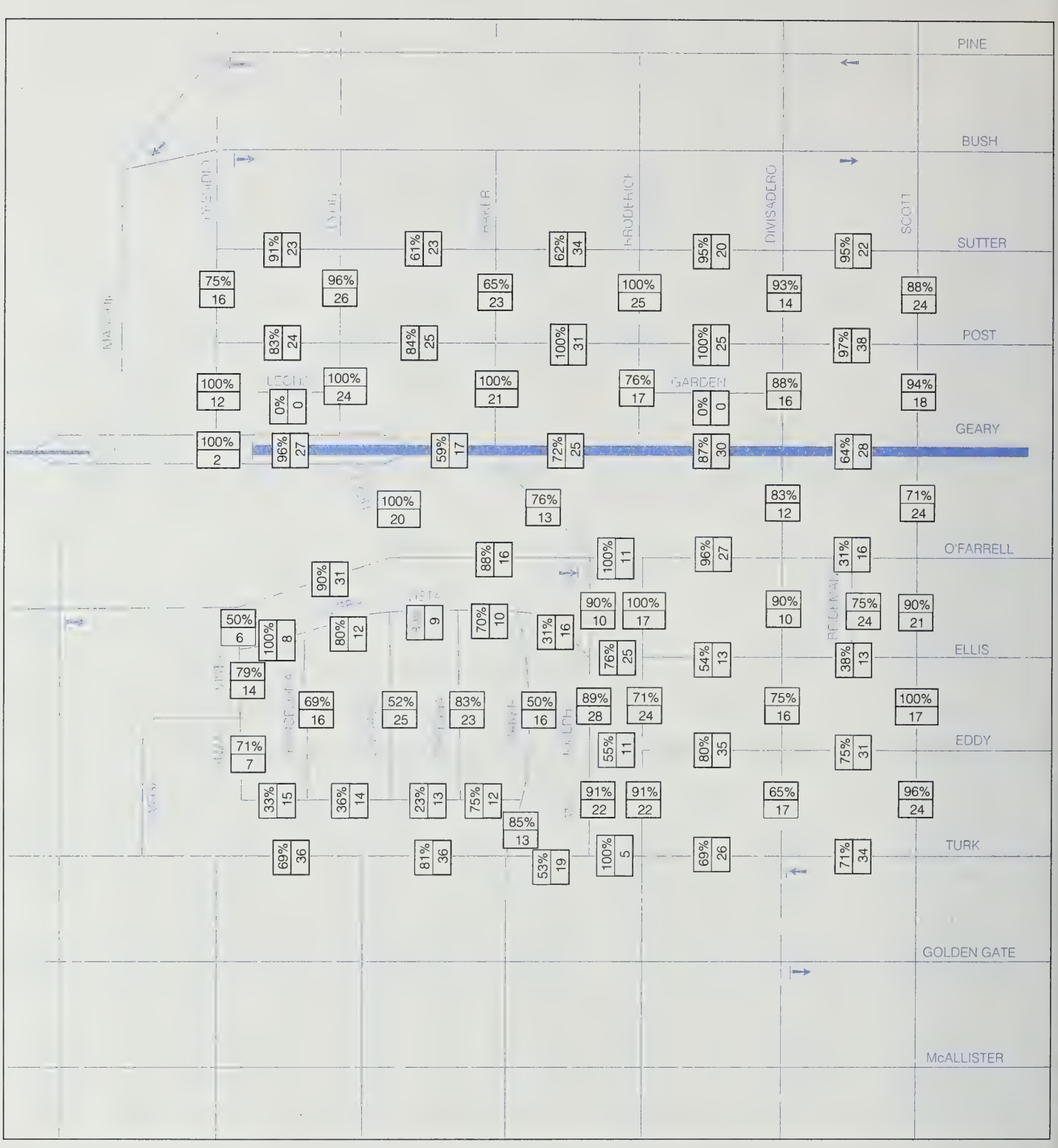
Source: San Francisco Municipal Railway, Service Planning, Scheduling and Data Services Department and Golden Gate Bridge Highway and Transportation District (Harvey Katz, Planning Department).

three free shuttle services to provide convenient transportation for Kaiser members and employees. One shuttle service operates between the French and Geary campuses and downtown San Francisco during the morning peak period (6:00 a.m. to 9:40 a.m. every 20 to 45 minutes) and afternoon peak period (3:00 p.m. to 6:35 p.m. every 35 to 55 minutes), one shuttle service operates between the Geary Campus and the French Campus between 7:00 a.m. and 5:50 p.m. every 15 to 40 minutes, and one shuttle service operates between the Kaiser facilities and local member residences between 9:30 a.m. and 2:30 p.m. (by appointment only). Kaiser is currently running five shuttle buses (two 9-passenger, one 17-passenger, and one 24-passenger).

PARKING

On-street and off-street parking surveys were conducted within an area bounded by Sutter Street, Scott Street, Turk Street, and Presidio Avenue.[2] Parking within the survey area consists of metered and unmetered on-street parking spaces, and publicly and privately accessible off-street lots and garages. Figure III.G.3 illustrates the supply and mid-day occupancy of the on-street parking in the area. Figure III.G.4, p. 179, illustrates the locations of the off-street parking facilities surveyed. The on-street parking occupancy within the study area is approximately 80 percent during the weekday midday period (i.e., between 1:00 a.m. and 3:00 p.m. since this period is typically the peak parking period). It should be noted that this occupancy reflects the entire survey area. The occupancy rates approach 100 percent on those streets immediately adjacent to the proposed project site. In general, streets which currently have 100 percent occupancy rates include Post Street, O'Farrell Street, Divisadero Street, Baker Street, St. Joseph's Avenue, and Lyon Street. It should be noted that approximately 200 Kaiser-related vehicles (employees, patients, and/or visitors) are currently parking on the street in the immediate vicinity of the Kaiser Geary Campus during the midday period.[3]

Off-street parking occupancy varies among the six public lots and garages surveyed (including the Kaiser public garage at 2190 O'Farrell Street), with an average occupancy of approximately 85 percent. The Kaiser public garage (408 spaces) has an occupancy rate of approximately 95 percent during the weekday midday period. Off-street parking facilities reserved for private



For Both Sides of the Street:

75% Occupancy Rate
16 Supply

NO SCALE

SOURCE: Korve Engineering

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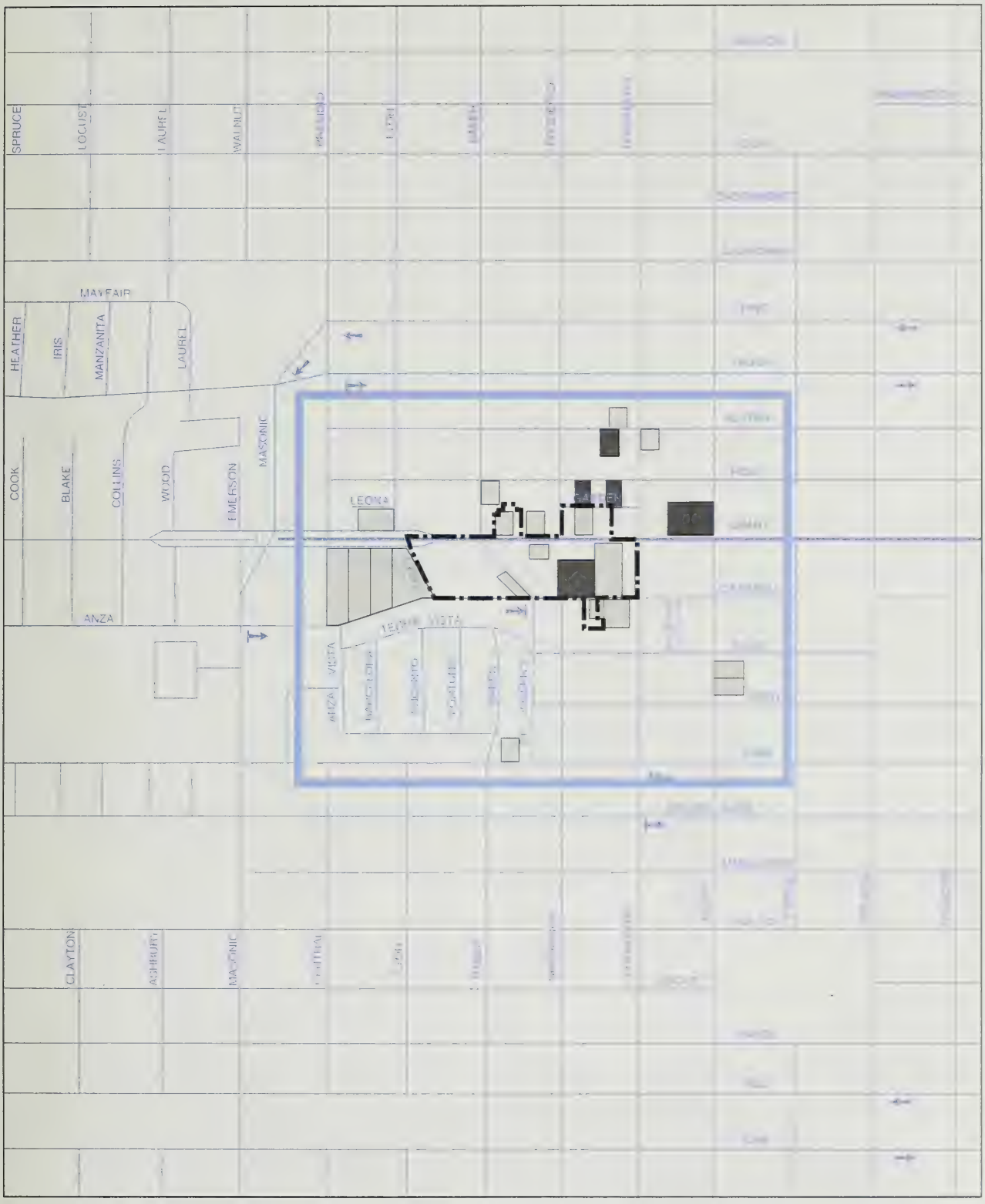
Figure III.G.3
On-Street Parking Survey



SOURCE: Korve Engineering

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.G.4
Off-Street Parking Survey

use, such as customer or employee parking, were also surveyed (including the Kaiser employee garage at 2130 O'Farrell Street). Among the 20 private parking lots and garages surveyed, the average occupancy rate is approximately 65 percent. The Kaiser employee garage (625 spaces) has an occupancy rate of approximately 85 percent during the weekday midday period. (See Table III.G.5 for the results of the off-street parking survey.)

Access to the Kaiser public garage at 2190 O'Farrell Street is located on O'Farrell Street, near Broderick Street,[4] and access to the Kaiser employee garage at 2130 O'Farrell Street is located on O'Farrell Street, approximately 120 ft. west of Divisadero Street. These two garages currently serve most of the employees, patients, and visitors of the campus, including the hospital. In addition to these garages, there are several smaller parking lots (total of 41 spaces) located throughout the campus which serve Kaiser-related outpatient services such as a seven-space parking lot at 2280 Geary Boulevard with access on Geary Boulevard; a 19-space parking lot at 2139 O'Farrell Street with access on O'Farrell Street; a 10-space parking lot at 2350 Geary Boulevard with access on Geary Boulevard; a 10-space parking lot at 2200 O'Farrell Street with access on Geary Boulevard, and a 10-space parking lot at 2425 Geary Boulevard with access on St. Joseph's Avenue. There is no off-street parking provided at the existing 21-unit residential/commercial building located at 1401-17 Divisadero Street.

KAISER FREIGHT LOADING

There are currently two off-street loading facilities (with one loading space each) at the hospital, one loading facility (with two loading spaces) at the main Distribution Center at 2130 O'Farrell Street, and one off-street loading area at 350 St. Joseph's Avenue. It should also be noted that no on-street loading spaces currently serve the existing commercial uses at the 1401-17 Divisadero Street or at the Eden Property.

TABLE III.G.5: OFF-STREET PARKING OCCUPANCY DATA WEEKDAY MIDDAY (1 PM - 3 PM)

Parking Lot No.	Parking Lot	Capacity (spaces)	Occupancy (spaces)	Percent Occupied
Public:				
1	AMPCO	67	73	109.0[3]
2	Mt. Zion Medical Center (entrance via Post Street)	31	20	64.5
3	Mt. Zion Parking Lot	33	20	60.6
4	Kaiser Public Parking Garage	408	380	93.1
5	UCSF Medical Center Garage[1]	535	418	78.1
6	PARK	62	68	109.7[3]
Total of Public Parking		**1,136**	**979**	**86.2**
Private:				
7	Sinai Memorial Chapel parking lot (entrance via Garden)	29	10	34.5
8[2]	Kaiser employee parking	625	532	85.3
9	Kaiser-related construction management	10	5	50.0
10	Kaiser physician parking	15	13	86.7
11	Narsmith Dental Group	19	19	100.0
12	Post Medical Center	39	44	112.8[3]
13	Auto Repair Center	14	14	100.0
14	Kaiser parking lot	19	9	47.4
15	Walgreen parking lot	24	22	91.7
16	San Francisco Psy. Society	47	36	76.6
17	Tony's Cable Car Restaurant	7	7	100.0
18	California College of Podiatric	17	5	29.4
19	Pacific Foot & Ankle Surg. Center	19	11	57.9
20[2]	Kaiser surface parking lot	10[4]	6	60.0
21	roof parking for tenants	128	7	5.5
22	Pizza Hut	97	25	25.8
23	Toys R Us	254	65	25.6
24	Office Depot	332	62	18.7
25	Jazzercise parking lot	20	8	40.0
26	Kaiser Infusion Center	7	12	171.4[3]
Total of Private Parking		**1,731**	**912**	**52.7**
Total of Public and Private		**2,867**	**1,891**	**66.0**

Notes:

1. There are 180 spaces reserved for Mt. Zion use. The remaining 355 spaces are available for public use.
2. Prior to conducting the parking survey for these Kaiser Geary Campus parking facilities, pre-approved authorization was needed. Therefore, data for these parking facilities were collected on Wednesday, May 17, 1995, while all other facilities presented in the table were surveyed on Tuesday, March 21, 1995.
3. Where occupancy exceeds capacity, vehicles are double-parked. Generally, keys are left with the parking attendant.
4. This parking lot has a capacity of 15 spaces. However, at the time of the survey, five spaces were temporarily occupied by garbage dumpsters and seismic upgrading equipment.

Source: Korve Engineering, Inc.

In general, Kaiser's Geary Campus truck deliveries are generated by two main sources: 1) trucks which deliver to the campus from external origins (external trips); and 2) trucks or vans which operate between Kaiser's main Distribution Center at 2130 O'Farrell Street and other facilities within the Kaiser Geary and French Campuses in San Francisco (internal trips).

External trips consist of approximately 40 (two-way) daily vendor deliveries, including FedEx and UPS, to the main Distribution Center at 2130 O'Farrell Street. These external trips include bulk deliveries made in 18-ft. to 30-ft. trucks once-a-day from Kaiser's Livermore warehouse, Baxter, and Owens Minor. Other external trips to the Geary Campus (or to Kaiser leased spaces) include linen, hospital oxygen, food and other supplies. Most of the deliveries are made Monday through Friday, between 7:30 a.m. and 3:00 p.m., with the busiest delivery hours between 8:00 a.m. and 11:00 a.m.[5]

For internal trips, a 12-ft. van is used to deliver lab couriers and charts six to eight times a day from the main Distribution Center at 2130 O'Farrell Street to individual buildings at the Geary and French Campuses and to Kaiser leased spaces. In addition, 18-ft. trucks are used to deliver other supplies two to three times a day from the main Distribution Center to each building at the Geary Campus and nearby Kaiser leased spaces. The internal delivery trips are made between 7:30 a.m. and 4:30 p.m.

TRANSPORTATION DEMAND MANAGEMENT

Kaiser has been providing Transportation Demand Management (TDM) services since the late 1970s as part of a citywide effort, involving major institutions (i.e., hospitals and universities) in San Francisco, to reduce transportation impacts by reducing the number of single-occupancy vehicles. Kaiser's current TDM program was recently updated in September 1995 and submitted to the City Planning Department. Kaiser currently has a part-time TDM coordinator in San Francisco, who administers the program, as well as full-time staff responsible for security services, shuttle bus operations, and TDM functions. The San Francisco TDM program is also managed by a full-time regional TDM coordinator and staff located in Oakland. The current

program includes elements such as transit subsidies, on-site transit pass sales, free shuttle service, free preferred carpool and vanpool parking, carpool and vanpool matching in cooperation with RIDES for Bay Area Commuters, and on-site bicycle lockers and showers. Kaiser has also developed a TDM Plan[6] which proposes additional measures, including organizational changes, promotional activities, and incentive programs to be considered by Kaiser.

NOTES - Transportation and Circulation

1. *San Francisco General Plan*, Transportation Element, July 1995.

2. A survey of on-street and off-street parking supply and occupancy conditions within a two-block radius of the Kaiser Geary Campus was conducted on Tuesday, March 21, 1995 between 1:00 p.m. and 3:00 p.m., by Korve Engineering, Inc.

3. Estimated by Korve Engineering, Inc. and is based on employee and visitor survey data.

4. Broderick Street is discontinuous between Geary Boulevard and O'Farrell Street.

5. Michael Sheats, Senior Project Manager, Kaiser Permanente San Francisco, memorandum to EIP Associates, August 30, 1996.

6. Kaiser Permanente San Francisco Transportation Demand Management Plan Study, September 1995, on file at the Planning Department, 1660 Mission Street, San Francisco.

H. NOISE

The standard unit of sound amplitude is the decibel (dB). Because the human ear is not equally sensitive to all frequencies, a frequency-dependent weighting scheme is imposed whenever sound is measured. A-weighted decibels (dBAs) handle a sound's frequency components in a manner approximating that of the human ear. Table IX.G.1, p. A.83, of Appendix G. Noise provides examples of the A-weighted sound levels associated with common situations.

Several indicators have been developed to measure environmental noise. Two of the most commonly used indicators are:

- Equivalent energy noise level (L_{eq}) is the average acoustic energy content of noise during the time it lasts. The L_{eq} of two different time-varying noise events are the same if they deliver the same acoustic energy to the ear during exposure, no matter what time of the day or night they occur.
- Day-night average noise level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA "penalty" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for the greater nocturnal noise sensitivity of people.

Research findings show that the percentage of an exposed population highly annoyed by noise increases from zero at an L_{dn} of about 50 dBA to 100 percent when the L_{dn} is about 90 dBA. Furthermore, for the same increase in L_{dn}, there is a greater increase in the number of people highly annoyed at high noise levels than at low noise levels. Table IX.G.2, p. A.85 of Appendix G. Noise, shows the increases in noise levels that would produce a measurable increase in the number of people who regard themselves as "highly annoyed" by environmental exposure.

The ambient noise adjacent to the Kaiser Geary Campus is dominated by vehicular traffic, particularly flows on the major adjacent streets (i.e., Geary Boulevard, Divisadero Street, and O'Farrell Street). Along O'Farrell Street, Kaiser Geary Campus activities have the most noticeable effect on the ambient noise level. Noise from traffic-related activities (i.e., Kaiser shuttle bus idling, shuttle bus/delivery truck back-up signals, vehicle queuing for the parking garage, etc.) and stationary equipment (i.e., parking garage ventilation machinery) also contribute to a lesser extent to the ambient noise level. Based on information volunteered by neighborhood residents during the acoustic survey of the project site vicinity, an additional source of annoyance

is noise produced by traffic accidents, particularly those occurring late at night. This information also indicates that noise from heavy trucks delivering supplies/removing debris from local construction sites (i.e., current work being done at Kaiser Hospital and UCSF/Mount Zion Hospital), particularly in the early morning, could be annoying to nearby residents.

Short-term noise levels were monitored at four locations near the Kaiser Geary Campus. Traffic was counted during the short-term measurement periods to calibrate the SOUND32 traffic noise prediction model used for subsequent projection and cumulative traffic noise modeling. A 24-hour continuous noise measurement was also conducted by placing an instrument at the second-story fire escape of the 2231 O'Farrell Street apartment building at the southeast corner of O'Farrell and St. Joseph's Avenue. The measurement locations are identified and the data taken there are summarized in Table III.H.1. A plot of the hourly L_{eq} and the hourly maximum instantaneous noise levels recorded over 24 hours at the 2231 O'Farrell Street monitoring site is shown in Figure III.H.1, p. 187.

The Kaiser Geary Campus is surrounded on three sides, north, east and south, by noise-sensitive land uses, predominantly residential but also including a church, Hamilton Memorial on Geary Boulevard. Kaiser Hospital and the existing 2200 O'Farrell Street outpatient service buildings would also be considered noise-sensitive. All such uses are currently exposed to noise levels higher than those considered ideal under federal, state and local criteria. Federal, state, and local noise criteria are described in Appendix G. Noise exposure is highest along Geary Boulevard, where noise levels currently approach 75 dBA L_{dn} (an "unacceptable" level for residential uses under federal and state criteria) at typical building setbacks. Noise along the Divisadero Street and O'Farrell Street residential frontages are lower, ranging from the low 60s dBA L_{dn} to the low 70s dBA L_{dn} (a "conditionally acceptable" level for residential uses under federal, state and local criteria).

Based upon a preliminary inspection of the residential facades facing the Kaiser Geary Campus (interior noise measurements were not performed), the capacities of the existing buildings to protect the residents from noise intrusion vary considerably. The buildings range from newer structures with tightly sealed aluminum-frame windows (e.g., 2420-2430 Geary, 1250 Broderick

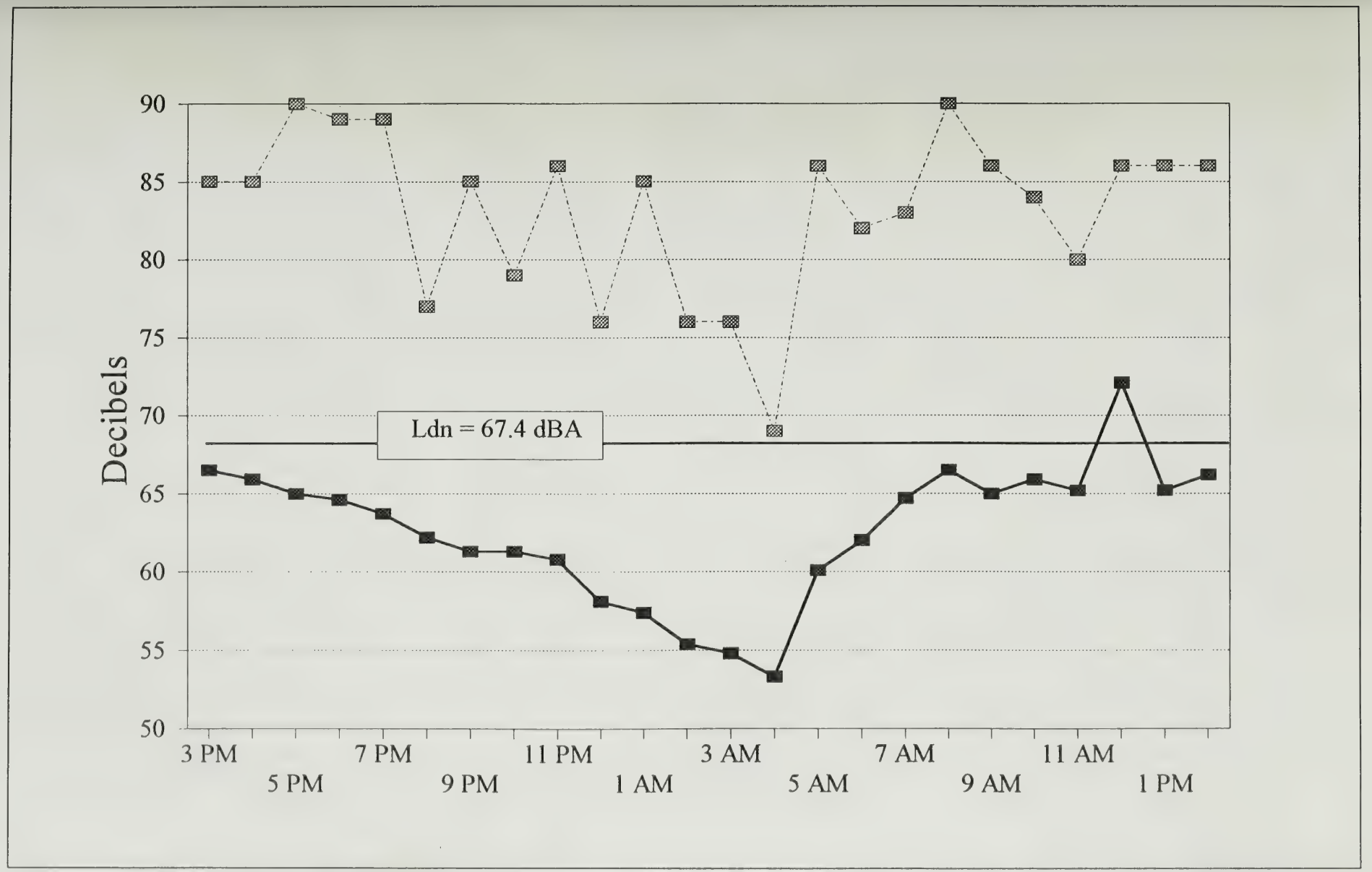
TABLE III.H.1: NOISE MEASUREMENT DATA SUMMARY[1]

Location Description	Measurement Period			Influential Noise Source(s)	Sound Levels (dBA)[2]		
	Date	Start Time	Duration		Leq	Lmax	Ldn
1. Outside multi-family residential at 2302 Geary, 57 ft. from centerline.	8/30/95	14:36	15 min.	Traffic on Geary Boulevard, enhanced by road gradient	73.1	87.3	74[3]
2. Outside multi-family residential at 1350 Divisadero 40 ft. from centerline.	8/30/95	15:07	15 min.	Traffic on Divisadero Street	68.5	91.8	70[3]
3. Outside multi-family residential at 240 St. Joseph's, 27 ft. from centerlline.	10/24/95	15:52	15 min.	Traffic on St. Joseph's Avenue, radio playing in background	63.7	81.0	na
4. Outside multi-family residential at 2231 O'Farrell, 40 ft. from centerline.	10/24/95	16:14	15 min.	Traffic on O'Farrell Street, Kaiser shuttle bus idling	66.6	78.0	na
5. Second story fire-escape of multi-family residential at 2231 O'Farrell, 45 ft. from centerline.	10/22/95	15:02	24 hrs.	Traffic on O'Farrell Street, vehicle idling, parking garage ventilation	64.5	90.0	67.4

Notes:

1. All noise measurements were performed using a Quest Electronics M-28 Noise Logging Dosimeter, calibrated with a Quest CA-12B Sound Calibrator.
2. Leq is the average noise intensity during the mesurement period.
   Lmax is the highest instantaneous noise intensity during the measurement period.
   Ldn is the 24-hour Leq with a 10 dBA "penalty" added to nighttime noise.
   na means data not available.
3. These values are the Ldn's at the closest residence to the monitoring location (see "Location Description" column where they are identified). They were estimated by using the SOUND32 traffic noise prediction model initialized with existing traffic data provided by Korve Engineering and calibrated with the short-term Leq measurement/simultaneous traffic count data taken during the survey.

Source: EIP Associates



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.H.1
Existing 24-Hour Noise Measurement at 2231 O'Farrell Street

at O'Farrell, 1325 Divisadero) to older structures with decaying wood-frame windows (e.g., 2302 Geary) or single-pane, aluminum frame windows, some lacking the capacity for full closure (e.g., 2400 Geary, 22 Terra Vista, 1450 Divisadero). These older buildings are not likely to decrease the ambient noise level as much as the newer structures would.

I. AIR QUALITY

Federal and state regulatory agencies set upper limits on the airborne concentrations of ozone, carbon monoxide (CO), nitrogen oxides (NO_x), sulfur oxides (SO_x), and small-diameter particulate matter (PM_{10}). Such upper limits or "ambient air quality standards" are designed to protect segments of the population most susceptible to the pollutants' adverse effects (e.g., the very young, the elderly, people weak from illness or disease, or persons doing heavy work or exercise). Federal and state standards for these are presented in Table III.I.1. The human health effects of these air pollutants are listed in Table III.I.2, p. 191.

The 1970 Clean Air Act (CAA) gave the U.S. Environmental Protection Agency (USEPA) the authority to set federal ambient air quality standards and required each state in violation of those standards to submit State Implementation Plans (SIPs) for their attainment. The CAA originally set a five-year deadline for federal standard attainment, but the deadline was moved forward by CAA Amendments of 1977 and 1990, in some cases to the year 2010, when many states had trouble meeting it.

The state passed the California Clean Air Act (CCAA) in 1988. The CCAA required the attainment of state ambient air quality standards by the "earliest practicable date" and established planning mechanisms, regulatory strategies, and standards of progress toward this goal.

The Bay Area Air Quality Management District (BAAQMD) takes primary responsibility for federal and state standard attainment planning, implementation, and enforcement in the Bay Area. Current plans for air quality improvement include the *Ozone and Carbon Monoxide Attainment/Maintenance Plans* (1993 & 1994), which address federal requirements, and the *Clean Air Plan* (1994), which addresses state requirements. Strategies include stricter motor vehicle emission limits statewide, with local bi-annual motor vehicle inspection/maintenance and transportation control measures (TCMs).

TABLE III.I.1: FEDERAL AND STATE AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standard[1]	Federal Standard[2]
Ozone	1-hour	0.09 ppm	0.12 ppm
Carbon Monoxide	1-hour	20.00 ppm	35.00 ppm
	8-hour	9.00 ppm	9.00 ppm
Nitrogen Dioxide	1-hour	0.25 ppm	---
	Annual Average	---	0.053 ppm
Sulfur Dioxide	1-hour	0.25 ppm	---
	3-hour	---	1300 $\mu g/m^3$
	24-hour	0.04 ppm	365 $\mu g/m^3$
	Annual Average	---	80 $\mu g/m^3$
Suspended Particulate Matter (PM_{10})	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$
	Annual Geometric Mean	30 $\mu g/m^3$	---
	Annual Arithmetic Mean	---	50 $\mu g/m^3$

Notes:
ppm in this table refers to parts per million by volume, ug/m^3 in this table refers to micrograms per cubic meter.

1. California standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide and particulate matter - PM_{10} - are values that are not to be exceeded.
2. National standards, other than for ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentration above the standard is equal to or less than one.

Source: California Air Resources Board, 1994.

Implementation of TCMs are particularly important because much of the Bay Area's air pollution comes from motor vehicles. Until recently, the BAAQMD enforced an Employer-based Trip Reduction Rule that required employers with 100 or more workers to develop programs to reduce drive-alone commute trips. But the passage of Senate Bill 437 (Lewis)[1] prohibits Air Districts and other public agencies from imposing requirements to implement a trip reduction program to mitigate air quality impacts, unless the program is expressly required by federal law and its elimination would result in the imposition of federal sanctions. The BAAQMD continues to promote employer-based trip reduction programs as a voluntary control measure.

TABLE III.I.2: HEALTH EFFECTS SUMMARY OF THE MAJOR CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Ozone	Eye irritation. Respiratory function impairment.
Carbon Monoxide	Impairment of oxygen transport in the bloodstream, increase of carboxyhemoglobin. Aggravation of cardiovascular disease. Impairment of central nervous system function. Fatigue, headache, confusion and dizziness. Can be fatal in the case of very high concentrations in enclosed places.
Nitrogen Dioxide	Risk of acute and chronic respiratory illness.
Sulfur Dioxide	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory illness.
Total Suspended Particulate Matter	Increased risk of chronic respiratory illness with long exposure. Altered lung function in children. With SO_2, may produce acute illness.
Suspended Particulate Matter	May be inhaled and possibly lodge in and/or irritate the lungs.

Source: BAAQMD, 1985.

REGIONAL CONTEXT

Regionwide elevated temperature inversions, caused when a layer of cool air is suspended between warm air layers above and below, are common in late summer and fall. Surface inversions, formed on winter nights when surface air cools faster than the air above it, are also common in many parts of the Bay Area, including San Francisco. When inversions coincide with low surface wind speed conditions, air pollutant levels rise. San Francisco's air quality benefits substantially from usually strong, direct maritime air flow, but, during calm periods, it can be adversely affected by pollutants emitted locally, particularly from motor vehicles.

The nine-county Bay Area Air Basin has a history of recorded violations of federal and state ambient air quality standards for ozone, CO, and PM_{10}. But since the early 1970's, substantial progress has been made toward controlling these pollutants. The USEPA has recently designated the Bay Area to be in attainment of the federal ozone standard and is considering a request for a similar designation with respect to the federal CO standard. The California Air Resources Board has designated the Bay Area to be in attainment of the state CO standard.

Occasional violations of state ozone and PM_{10} standards still persist, however, and although further air quality improvement is anticipated, their attainment is not anticipated within the current 20-year planning horizon.

Air Pollutant Problems in the Bay Area

Extensive industrial and urban development, especially from the widespread use of motor vehicles, are the major contributors to air pollution problems in the Bay Area.

Ozone

Ozone is a secondary pollutant which forms from the interaction of reactive organic gases (ROG), and nitrogen oxides (NO_x) in the presence of sunlight. Motor vehicles are the primary source of ROG and NO_x. Ozone standards have been violated most often in the Santa Clara, Livermore, and Diablo Valleys because local topography and meteorological conditions favor the buildup of ozone and its precursors.

Carbon Monoxide

In 1995, about 65 percent of the carbon monoxide (CO) in the Bay Area was generated by motor vehicles.[2] The one-hour and eight-hour CO standards have been occasionally exceeded in San Francisco, San Jose, and Vallejo, which are areas with high traffic volume and frequent surface inversions during the winter months.

Particulate Matter

Particulate levels in the Bay Area are low near the coast, including San Francisco. Levels increase with distance inland and reach their highest levels in dry, sheltered valleys, such as the Santa Clara, Diablo, and Livermore Valleys. The largest anthropogenic sources are motor vehicle travel over paved and unpaved roads, demolition and construction activities, and agricultural operations and burning. Natural sources (i.e., wind-raised dust) are also significant. Particulate standards refer to particulates that are small enough to be inhaled (i.e., PM_{10}; those less than 10 microns in diameter). The state ambient air quality standards for PM_{10} are exceeded regularly in the Bay Area.

Nitrogen Oxides

The major sources of nitrogen oxides (NO_x) are vehicular, residential, and commercial fuel combustion. Concentrations of nitrogen dioxide (NO_2), the most abundant form of ambient NO_x, are highest in the South Bay. NO_2 standard violations have not been measured at any monitoring station in the Bay Area since the early 1980's.

Sulfur Dioxide

The burning of high sulfur fuels for activities such as electricity generation, petroleum refining and shipping are the major sources of sulfur dioxide (SO_2). The highest levels of SO_2 are recorded by monitoring stations located in a relatively narrow crescent along the bayshore of northern Contra Costa County, where the major sources are located. The SO_2 standard is currently being met throughout the Bay Area.

Pollutant Trends in the Bay Area

The BAAQMD has compiled ROG, NO_x, CO, PM_{10}, and SO_2 emission inventories for the major pollutant sources in the Bay Area for the years 1995, 2000, and 2010 (see Table III.I.3). The substantial reductions apparent in the ROG, NO_2, and CO emissions are attributed to the stringent emission controls that have been or will be imposed on motor vehicles and stationary sources. PM_{10} is the only pollutant that shows a steady increase, mostly due to the growth in motor vehicle travel foreseen for the Bay Area. These emissions projections assume the following:[3]

- population, housing, employment, economic growth, and land use will increase as regionally forecasted (ABAG, ***Projections '94,*** December 1993);
- cars will become cleaner, as required by California regulations;
- the recently improved "Smog Check" program will continue;
- controls on industry and business will continue; and
- current transportation control measures will continue.

AIR POLLUTANT CONCENTRATIONS IN THE VICINITY OF THE KAISER GEARY CAMPUS

The BAAQMD operates monitoring stations at 10 Arkansas Street at the foot of Potrero Hill, about two and a half miles southeast of the project site, and at 939 Ellis Street, about a mile east of the Geary Campus. Table IX.H.1, p. A.89 in Appendix H. Air Quality, summarizes the most recent four years of available data. The following conclusions can be drawn from these data. Ozone, CO and NO_2 levels near the monitoring stations have not exceeded federal or state standards for the past five years. PM_{10} levels near the monitoring stations occasionally exceed the state 24-hour standard, but not the federal standard.

TABLE III.I.3: BAY AREA CRITERIA POLLUTANT EMISSIONS PROJECTIONS
(Tons/Day - Annual Average)

	CO	ROG[1]	NO_2	SO_2	PM_{10}[2]
1995					
Total Emissions	2425	535	454	102	462
Motor Vehicle Emissions	1598	242	200	10	321
(Motor Vehicle's Percent of Total)	(66%)	(45%)	(44%)	(10%)	(70%)
2000					
Total Emissions	1963	464	441	107	501
Motor Vehicle Emissions	1108	166	171	10	355
(Motor Vehicle's Percent of Total)	(56%)	(36%)	(39%)	(9%)	(71%)
2010					
Total Emissions	1600	406	449	115	582
Motor Vehicle Emissions	697	88	161	12	427
(Motor Vehicle's Percent of Total)	(44%)	(22%)	(36%)	(10%)	(73%)

Notes:
1. Reactive organics (excluding emissions from natural vegetation).
2. Including entrained road dust.
(Projections are based on the Base Year 1990 Air District Emission Inventory.)

Source: BAAQMD and ABAG, *Improving Air Quality Through Local Plans & Programs*, October 1994.

Because ozone levels vary slightly over distances of several miles, the maximum concentrations measured at Arkansas Street probably are close to maximum ozone levels experienced in the vicinity of the campus. CO and PM_{10} levels are more responsive to nearby sources, particularly traffic, the largest source of both pollutants. Traffic volumes on Van Ness Avenue and Ellis Street, where the BAAQMD CO monitoring station is located, are comparable to those on Geary Boulevard and Divisadero Street adjacent to the campus. The same could be said about traffic volumes near the Arkansas Street station, taking into account the passage of U.S. 101 and I-280 through that area. Thus, the maximum CO and PM_{10} levels in the vicinity would be comparable to the maximum CO and PM_{10} experienced at the campus. BAAQMD pollutant level contour maps generally confirm these judgments.[4]

NOTES - Air Quality

1. Chapter 607, 1995 stats., codified as Section 40929 of the Health and Safety Code.

2. BAAQMD and ABAG, *Improving Air Quality Through Local Plans and Programs*, October 1994, Appendix C, Table C.III, Motor Vehicle Share of Criteria Contaminant Emissions.

3. BAAQMD and ABAG, *Improving Air Quality Through Local Plans and Programs*, October 1994, p. C-3.

4. BAAQMD and ABAG, *Improving Air Quality Through Local Plans and Programs*, October 1994, Appendix C, Figures C.4.a, C.4.b and C.4.c.

J. HAZARDOUS MATERIALS

Kaiser uses many materials at the Geary Campus during the course of daily operations. Some of these materials are hazardous. Hazardous materials use usually results in hazardous byproducts that must be handled and disposed of as hazardous wastes. This section provides an overview of the regulatory setting applicable to health and safety at the Kaiser Geary Campus. Established health and safety policies and procedures at Kaiser are discussed in detail in Appendix I. Hazardous Materials, pp. A.100 - A.102, and summarized here. The combined regulatory requirements and the Kaiser policies and procedures provide the full health and safety context within which the project would function. This section also describes the existing and proposed hazardous materials use and disposal at the project site. It specifically addresses issues related to hazardous chemicals and biohazardous materials. Radioactive materials are used in the Nuclear Medicine Department which is located in the hospital building at 2425 Geary Boulevard.[1] Issues related to soil and groundwater contamination, as well as possible environmental hazards associated with older structures on the project site are discussed in III.P. Contaminated Soils and Hazardous Wastes, pp. 246 - 265.

DEFINITIONS

The term "hazardous material" is defined in different ways for different regulatory programs. For purposes of this EIR, the definition of "hazardous material" is similar to that given in California Health and Safety Code, Section 25501.

- Hazardous materials are materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

For the purposes of this EIR, the definition of "hazardous waste" is essentially the same as that given in California Health and Safety Code, Section 25117 and in California Code of Regulations, Title 22, Section 66261.2.

- Hazardous wastes are wastes that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when promptly treated, stored, transported, disposed of, or otherwise managed.

Hazardous waste, which is a subset of hazardous material, includes any waste that is hazardous due to toxicity, ignitability, corrosivity, or reactivity. The characteristics of toxicity, ignitability, corrosivity, and reactivity are defined in California Code of Regulations, Title 22, Sections 66261.20-66261.24 (see Glossary, p. 210).

For the purposes of this EIR, the following definitions for "biohazardous materials" and "biohazardous waste/medical waste" have been adopted.

- Biohazardous materials include materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, viruses that normally cause or significantly contribute to increased human mortality, or organisms capable of being communicated by invading and multiplying in body tissues) or cells containing certain recombinant DNA molecules (those with codes that can be translated to create a protein).
- Medical waste is a general term that includes both biohazardous waste (byproducts resulting from use of biohazardous materials) and sharps waste (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of human beings or animals; research pertaining to theses activities; or the production of biologics (naturally occurring therapeutic pharmaceutical product or a derivative of such a compound). Medical waste does not include waste containing microbiological cultures associated with food processing or biotechnology that is not otherwise considered to be infectious.

Medical waste is not necessarily limited to wastes coming from medical facilities. Examples of potentially biohazardous laboratory wastes include wastes from growing bacteria, working with viruses, and using spores.

REGULATORY BACKGROUND

Hazardous materials handling and hazardous waste management are subject to many laws and regulations at all levels of government. Laws and regulations related to public health and safety are discussed in detail in Appendix I. Hazardous Materials. A brief summary of these regulations is provided here.

Hazardous Materials Management

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. Laws and regulations require hazardous materials users to store hazardous materials appropriately and to train employees to manage these materials safely.

Worker Safety

The California Occupational Safety and Health Administration (Cal-OSHA) and the federal Occupational Safety and Health Administration (Fed-OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. In California, Cal-OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices.

Hazardous Waste Handling

The California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the Resource Conservation and Recovery Act (RCRA) and the

California Hazardous Waste Control Law. Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. The DTSC permits and oversees all hazardous waste treatment, long-term storage, and disposal activities.

Biohazardous Materials

The United States Department of Health and Human Services Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health prescribe containment and handling principles for use in microbiological and biomedical laboratories. Based on the potential for transmitting biological agents and the rate of transmission of these agents, and based on the quality and concentrations of biological agents produced at a laboratory, Biosafety levels may be instituted as prescribed by these principles.

Medical Waste Handling

Medical (biohazardous) waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. The California Department of Health Services Medical Waste Management Program enforces the Medical Waste Management Act and related regulations. The law imposes a cradle-to-grave tracking system and a calibration and monitoring system for on-site treatment. Facilities that treat medical wastes must obtain permits and are subject to annual audits. Medical waste is to be transported in closed red bags marked "biohazard" and placed inside hard-walled containers with lids.

Hazardous Materials Transportation

The U.S. Department of Transportation regulates hazardous materials transportation between states. State agencies with primary responsibility for enforcing federal and state regulations and

responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types to be used and license hazardous waste haulers for hazardous waste transportation on public roads.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the state Office of Emergency Services, which coordinates the responses of other agencies including the Cal-EPA, the California Highway Patrol, and the Department of Fish and Game.

HEALTH AND SAFETY POLICIES AND PROCEDURES AT KAISER

Health and safety policies and procedures at Kaiser are discussed in detail in Appendix I. A brief summary of these policies and procedures is provided here.

The Safety Office at Kaiser has primary responsibility for establishing health and safety procedures and compliance with federal, state and local environmental laws and regulations. Copies of various plans and policies, as required by applicable regulations, are maintained at the Safety Office, including the Hazard Communication Plan; Emergency Response Plan; Biosafety Manual, which includes the Injury and Illness Prevention Program; Respiratory Protection Plan; and Blood-Borne Pathogen Exposure Control Plan.

Each Department Head is responsible for developing departmental policies and procedures for receiving, storing, handling, disposing and dealing with emergency situations pertaining to hazardous materials use in each department. Kaiser employees are required to attend training

sessions provided by the Department head and general orientation conducted by the Education and Training Department.

Kaiser's Material Management Department and Safety Office maintains a Master File that contains a facility-wide inventory list and a Material Safety Data Sheet (MSDS) for each hazardous substance used at the facility. MSDSs are available in the Safety Office, Material Management Department and in the department files.

HAZARDOUS MATERIALS USE AT KAISER

Hazardous materials can be classified into hazardous chemical materials (non-radioactive), radioactive materials, and biohazardous materials. The discussion below describes existing hazardous materials use at Kaiser. Radioactive materials used only at the hospital building at 2425 Geary Boulevard are not discussed, because there would be no change in hospital operations as a result of this project. Types of hazardous materials found in medical facilities include:

- solvents, oxidizers, corrosives;
- infectious agents; and
- test samples (e.g., specimens such as blood, tissue, or body fluids).

Facilities maintenance activities also require hazardous materials. Examples of hazardous materials encountered during vehicle, grounds, and building maintenance include:

- fuels (gasoline and diesel);
- oils and lubricants;
- antifreeze;
- cleaners, which may include solvents and corrosives in addition to soaps and detergents;
- paints and paint thinners (both oil-based and latex);
- freons (refrigerants); and
- pesticides and herbicides.

Hazardous Chemicals (Non-Radioactive)

Hazardous chemicals are used in various departments at the Kaiser facility. The Central Supply Department on the fifth floor of the Kaiser Hospital at 2425 Geary Boulevard provides for sterilization of medical instruments and equipment, using a highly toxic gas called ethylene oxide. The medical instruments and equipment used in the medical offices with outpatient services are also sterilized at the Central Supply Department. The laboratory uses substantial amounts of hazardous chemicals, including alcohols, xylenes, formaldehydes, stains and reagents. Acids are also used in the laboratory, including nitric acid, hydrochloric acid and glacial acetic acid. Bases used include sodium hydroxide and ammonium hydroxide. The Central Plant at Kaiser Hospital at 2425 Geary Boulevard maintains and operates mechanical equipment including underground tanks to store diesel fuel and provides those services to medical offices and clinics also. Hazardous materials including formaldehyde, flammable liquids, paints, solvents, pesticides, and detergents are used in other departments.

On the Geary Campus, the buildings at 2200 O'Farrell Street, 350 St. Joseph's Avenue, 2350 Geary Boulevard, 2130 O'Farrell Street, 2139 O'Farrell Street, and 2266 and 2280 Geary Boulevard (on the Eden Property) are used by Kaiser for outpatient services, clinical operations and offices. The eight-story building at 2200 O'Farrell Street uses several 5-gallon containers of oil and acids for maintenance of the heating, ventilation and air conditioning system. Several janitorial closets and storage rooms for various items including compressed gases and chemicals are located on each floor. The building at 350 St. Joseph's Avenue has several janitorial closets, a paint room, a machine workroom, a pathology lab and a storage room, and a frozen section laboratory. Various cleaning chemicals are stored in the janitorial closets and large amounts of paints, joint compounds, and adhesives are located in the paint room and machine workroom. The building at 2130 O'Farrell Street is used as offices and for automobile parking by Kaiser employees. In addition, a distribution center is located near the southeast corner of the building. The maximum amounts of chemicals stored in the buildings on the project site and the annual use are presented in Table III.J.1.[2] The annual use exceeds the amount of certain chemicals stored. The stock is replenished as necessary; the maximum storage quantity is not exceeded at any time.

TABLE III.J.1: QUANTITIES OF CHEMICALS STORED AND USED AT GEARY CAMPUS

	2200 O'Farrell		350 St. Joseph's		2350 Geary		2130 O'Farrell		Total	
	Amount Stored	Annual Usage	Amount Stored	Annual Usage	Amount Stored	Annual Usage	Amount Stored	Annual Usage	Amount Stored	Annual Usage
Gallons	600	15,500	200	360	270		350	4,500	1,420	20,360
Cubic Feet	5,700	8,200	560	560	50	175	4	14	6,314	8,949
Pounds			180	1,200		1	40	275	220	1,476

Source: Chemical Inventory, Safety Office, Kaiser Permanente Medical Center, San Francisco.

Hazardous materials are stored in laboratories, pharmacies and other departments in small quantities. As discussed in Table III.J.1, the amount of hazardous chemicals currently stored at the Phase 1 sites (Phases 1A, 1B and 1C) include approximately 870 gallons of liquid and 5,750 cubic ft. of compressed gases. This includes the maximum quantities stored at 2200 O'Farrell Street and 2350 Geary Boulevard.[3]

Other buildings on the Geary Campus, including 2139 O'Farrell Street, 2190 O'Farrell Street, 1401-1417 Divisadero Street, and most of the buildings on the Eden Property (Phase 1A site) do not generally store or use hazardous materials.[4] Most of the buildings on the Eden Property are known to have small quantities of household cleaning supplies and some paint cans. Small quantities of drugs are stored in buildings at 2266 and 2280 Geary Boulevard, used by Kaiser as medical clinics. The Infusion Center is the only Kaiser clinic on the Eden Property which uses hazardous materials. The materials present at the Infusion Center include eight bags of pentamidine, a respiratory drug used in a mixture, two bottles of rubbing alcohol, and cleaning supplies.

A Radiology laboratory is located on the first floor of the outpatient services building at 2200 O'Farrell Street (Phase 1C site). Several X-ray machines are used in the Radiology laboratory. Approximately 8,800 gallons of Kodak developer and fixer (in equal amounts) are used each year in these machines.[5]

Biohazardous Materials

Various biologically hazardous substances are handled in different departments at Kaiser for diagnostic purposes and clinical testing. Infectious agents, characterized as biohazardous material, are handled in laboratories, nuclear medicine, dialysis units, nursing, operating rooms, pathology, radiology, and respiratory therapy. Other biohazardous materials at Kaiser include pathological specimens, surgical specimens, human tissues, bulk blood, blood products, blood specimens, and body fluids.

HAZARDOUS WASTE GENERATION AT KAISER

As a consequence of hazardous materials consumption, hazardous waste is generated; not all of the hazardous materials used become hazardous waste. Hazardous waste generated at Kaiser can be grouped into two categories: hazardous chemical waste and medical waste.

Hazardous Chemical Waste

Hazardous chemical waste includes toxic chemicals such as formaldehyde, xylene, alcohols, and reagents. Waste amounts of toxic chemicals generated at Kaiser clinics are collected, labeled, and stored in locked containers located within a fenced enclosure in the parking area adjacent to the north of the building at 2200 O'Farrell Street (Phase 1C site). This waste is removed from the site three times a week by a licensed hauler.

The waste formaldehyde is neutralized by mixing with formalin fixative. The mixture is then disposed of via the sanitary sewer under a permit issued by the City of San Francisco.

Spent X-ray developer from the Radiology laboratory at Kaiser is collected, labeled, and removed by Kaiser Regional Biomedical Engineering for recycling. The waste developer chemicals are removed from the site every Friday.

Approximately 6,200 gallons of waste chemicals are produced on an annual basis by the film development process.

The quantities of hazardous chemical wastes generated at Geary Campus, excluding the hospital, during the years 1993 and 1994 are presented in Table IX.I.2, p. A.103, of Appendix I. The data were collected from Kaiser's manifest records maintained at the Safety Office.[6] Since Kaiser maintains a consolidated manifest record for the wastes generated at all the facilities, the data obtained from the manifest records were adjusted to reflect the proportion of the waste stream attributed to the outpatient services.[7]

Biohazardous Waste

Biohazardous (medical) waste is likely to cause disease. For an infection to occur, the presence of a pathogen must be of significant virulence[8] in an adequate dose which is able to gain entry into a susceptible host. A list of materials that are classified as infectious waste with their final disposal process is provided in Table IX.I.3, p. A.104, of Appendix I.

Pathological waste is placed in specially labeled waste containers located in Pathology rooms by Pathology personnel to prevent human tissue from reaching regular trash or regular infectious waste trash for local sterilization. Pathology waste containers are lined with two impervious red plastic bags which are placed in prelined red impervious plastic lined infectious waste boxes by Environmental Services personnel.[9] Infectious waste containers from these areas are removed by Environmental Service personnel to the designated locked holding areas for pickup by a licensed disposal contractor. Trash containers for non-biohazardous waste in the patient care areas/exam rooms are lined with clear plastic impervious bags for monitoring purposes. Biohazardous waste is placed in containers lined with red plastic impervious bags and are identified with the word "BIOHAZARD" and the biohazard symbol. Articles soiled with blood and/or body fluids with visible blood are also placed in red lined waste containers. All sharps and needles including syringes, scalpels, broken laboratory glassware are placed into the opening of rigid puncture-resistant sharp containers which are placed in biohazardous waste containers in the locked holding areas at designated locations throughout the facility. Table IX.I.4, p. A.105, of Appendix I provides the disposal procedures for various biological waste streams at Kaiser.

All bags are secured for disposal when no more than three-quarters full or sooner if odor becomes a problem. Appropriate protective apparel, including heavy utility gloves, goggles, gowns and face shields, depending on the type of waste, are worn when handling and disposing of infectious waste. Infectious waste bags/boxes designated for pickup by a licensed disposal contractor are transferred by Environmental Services personnel to designated locked storage rooms/bins throughout the facility. Other infectious waste, designated for on-site sterilization, is transported by Environmental Service personnel to the secured sterilization area on Geary Campus at 350 St. Joseph's Avenue and 2425 Geary Boulevard.

The building at 2200 O'Farrell Street generates a total of approximately 42,000 pounds of biohazardous/medical waste per month. Table IX.I.5, p. A.106, of Appendix I presents the amount of each waste type generated per month and their disposal and treatment method. A total of 19,456 pounds of biohazardous waste was transported off-site by licensed transporter from this building between January 1995 and September 1995.[10] A total of 180 pounds of biohazardous waste is generated per month at the building at 2130 O'Farrell Street; all are transported off-site by licensed transporter.

PHYSICAL HAZARDS

As with all work environments, various physical safety hazards exist at Kaiser. Office and clinical activities, as well as laboratory work, are associated with various physical hazards from common activities such as lifting, using sharp tools, and performing repetitive motions. Some Kaiser employees work with equipment that present special hazards, such as high voltage electrical equipment, x-ray and ultraviolet radiation-producing instruments, and lasers.

Materials that present physical hazards are those that can be associated directly with a personal physical injury, rather than a toxic exposure injury. A physical injury may have a toxic exposure as a secondary injury, therefore protecting against toxic exposure is as important as protecting against physical injury. Some hazardous materials, in general, have the potential to pose physical safety hazards if not properly managed. Classes of materials that can be associated with physical injuries are: flammable mixtures, corrosive chemicals, highly reactive chemicals, and explosives. Sometimes the hazards are not related to the material itself, but to how the material is contained. The degree of fire hazard for a substance depends on its ability to generate vapor which, in mixing with air, forms a combustible or explosive mixture. Mixtures of materials can react among themselves or with the oxygen in the air to cause spontaneous combustion. Spontaneous reactions may occur when materials are combined for disposal, for example, organic materials mixed with strong oxidizers. Compressed gases and cryogenic (very cold) liquids also present physical hazards.

SAFETY HISTORY AND REGULATORY COMPLIANCE RECORD

Kaiser's safety history and regulatory compliance record are relevant to this analysis because they provide the basis for evaluating the effectiveness of legally required health and safety regulations as well as Kaiser's health and safety policies and procedures in mitigating potential health and safety impacts. Kaiser's regulatory compliance record, which is summarized below, demonstrates that Kaiser has a history of substantial compliance with legal requirements related to health and safety.

Safety History

Cal-OSHA requires employers to track all work-related employee injuries and illnesses. These records, recorded on OSHA Log 200 forms, include all employees at the Kaiser Geary Campus, not just those using hazardous materials, and primarily reflect the effects of physical safety hazards in the workplace. Table IX.I.6, p. A.107, of Appendix I summarizes injuries and illnesses reported on Kaiser 1993 and 1994 OSHA Log 200 forms. None of the incidents reported were due to hazardous materials use.[11]

Regulatory Compliance Record

During the preparation of this EIR, EIP Associates reviewed various inspection reports prepared by the Kaiser Safety Officer following the regular health and safety rounds of the facility. Deficiencies in the facility buildings and operation procedures that may cause health and safety issues are identified during the inspections. Such deficiencies are corrected to follow the regulatory requirements and safe practices. There was documentation in the files at the Safety Office that indicated efforts made by Kaiser staff to correct the deficiencies noted during the inspections. Routine facility inspections are also conducted by regulatory agencies, including Cal-

OSHA; the City and County of San Francisco Hazardous Materials Division; and the San Francisco Fire Department.

Kaiser was cited for three violations during the year 1995 and paid a fine of $1,050.

GLOSSARY

Toxic substances: Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels. (The level depends on the substance involved.) Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include benzene, which is a component of gasoline and a suspected carcinogen, and methylene chloride, a common laboratory solvent.

Ignitable substances: Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.

Corrosive materials: Corrosive materials can cause severe burns or damage materials; these include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).

Reactive materials: Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

NOTES - Hazardous Materials

1. A portion of the Nuclear Medicine Department was relocated to the French Campus while the Hospital at 2425 Geary Boulevard is seismically retrofitted. Upon completion of the seismic retrofit of the Hospital at 2425 Geary Boulevard, the department is expected to move back to the Geary Campus. The storage and use of radioactive material at the hospital would return to the previous level, and would experience an increase associated with the projected growth in membership and services.

2. A listing of the types and quantities of chemicals used and stored in the buildings is available for public review at the Department of Public Health, 101 Grove Street, San Francisco.

3. There are no hazardous materials used or stored at the Phase 1A/2290 Geary Boulevard and Phase 1B/2139 O'Farrell Street sites. The existing use and storage at 2130 O'Farrell Street will continue; this site address is not part of the project.

4. Small amounts of household cleaning supplies and paints in the building on Divisadero Street and a 1-gallon container of spot remover were noted near an enclosed area on the lower level of a parking structure at 2190 O'Farrell Street during Kleinfelder's site visit while performing a Phase I environmental assessment for Kaiser in August 1995. Two full 5-gallon containers of hydraulic fluid were also noted on the concrete floor at 2266 Geary Boulevard.

5. Kleinfelder, Inc., Phase I Preliminary Environmental Site Assessment and Building Material Survey Report, Kaiser - Geary Campus, San Francisco, California, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of City Planning, 1660 Mission Street, San Francisco.

6. Copies of manifest records are available for public review at the Department of Public Health, San Francisco.

7. Michael Sheats, Senior Project Manager, Facilities Design and Construction, Kaiser Permanente Medical Center, San Francisco, letter to Nancy Cunningham Clark, EIP Associates, May 30, 1996.

8. The relative capacity of a pathogen to overcome body defense.

9. The Environmental Services Department at Kaiser provides the house-keeping services to Kaiser facilities. Environmental Services personnel are responsible for collecting wastes from various facilities and transporting them to a central location for collection by licensed contractors.

10. Bonita Pirch, Environmental Services Department, Kaiser Permanente Medical Center, San Francisco, personal communication, October 19, 1995. Kaiser will provide data on biohazardous waste transported in October, November, and December 1995.

11. Michael Sheats, Senior Project Manager, Facilities Design and Construction, Kaiser Permanente Medical Center, San Francisco, letter to Nancy Cunningham Clark, EIP Associates, May 23, 1996.

K. UTILITIES AND COMMUNITY SERVICES

FIRE PROTECTION

Fire protection for the Geary Campus site is provided by the San Francisco Fire Department (SFFD). The SFFD consists of about 1,500 uniformed and 90 non-uniformed (civilian) personnel. The Department's fire suppression and emergency rescue forces consist of 41 engine companies, 18 truck companies, 2 rescue squads, 2 fire boats, and other special purpose units. These companies are organized into two Divisions which are further divided into 10 battalions. During Fiscal Year (FY) 1994, these Department suppression personnel responded to a total of about 58,700 incidents.[1,2] The San Francisco Kaiser Geary Campus is located within the Division 2, Battalion 5 service area.

The SFFD has a Hazardous Materials Response Unit that handles incidents related to hazardous materials. The Hazardous Materials Response Unit is a specially-trained team equipped with protective gear and other equipment to contain hazardous materials. This unit is housed at Station 36 on Oak Street, near the Civic Center, approximately two miles from the Geary Campus. The San Francisco Geary Campus currently implements an emergency response plan that includes response and notification procedures for hazardous materials incidents, i.e. fires or spills.[3]

Emergency response calls to the SFFD from the Geary Campus average about six to ten calls annually. Because of on-going construction activity, the majority of these calls are false alarms caused by outside contractors doing work without proper notification. According to Kaiser personnel, five fires have occurred at the Geary Campus during the past 15 years.[4] One of these incidents related to an automobile fire in the garage involving gasoline (classified as a hazardous material). The services of the SFFD's Hazardous Materials Response Unit were not requested.

The fire-fighting water supply for the City and County of San Francisco includes both low-pressure and high-pressure water distribution systems. The low-pressure system serves the entire City and is the same as the drinking water supply distribution system. The high-pressure system

is a special dedicated system used only for fire-fighting. The high-pressure system can handle more volume, delivers at a higher pressure, and can withstand seismic damage better than the low-pressure system. High-pressure hydrants are not available throughout the entire City. Generally, they are concentrated in areas where large structures are located, such as the Downtown area. Near the project site, high-pressure hydrants are located at Geary Boulevard/Divisadero and at the southeast corner of O'Farrell Street and Divisadero Street.

POLICE PROTECTION

The San Francisco Police Department provides police protection to the Geary Campus. The part of Geary Campus north of Geary Boulevard is in the Richmond District, and the area south of Geary Boulevard is in the Park District. The Park District is staffed by 80 sworn officers and 2 civilian personnel. The Richmond District is currently staffed by 82 sworn and 3 civilian employees. The average emergency response time for the Park and Richmond Districts is about six minutes.[5]

According to the Richmond Police Station, the Richmond District has the lowest crime rate of any district in the City.[6] Ninety percent of the district consists of residential areas and small businesses.[7] The area that has the highest incidence of crime in this district is the area surrounding the Post/Baker/Sutter/Broderick block. Typical crimes in this neighborhood include drug sales and street robberies.[8] Around the Kaiser Hospital, which is located in the Park District, auto burglaries are prevalent. The vicinity of the Geary Campus also experiences drug-related crimes. According to the Park District station, drug-related crimes are concentrated in a one-block radius of the Divisadero/O'Farrell/Scott/Geary block.[9]

Kaiser security officers and an electronic security system provide added security for the hospital grounds.[10]

SOLID WASTE COLLECTION

In San Francisco, two licensed haulers have rights and permits to haul household solid waste for disposal. The hauler serving the Geary Campus is the Sunset Scavenger Company, which hauls solid waste to the Sanitary Fill Company, which is a solid waste transfer and recycling center in the southeastern portion of San Francisco, near the Brisbane city limit, for sorting and recovery of recyclable materials. Waste that is not recovered through sorting and recycling from the collected material is hauled to the Altamont Landfill in Alameda County for disposal. San Francisco currently generates about 1.011 million tons of solid waste annually. About 43 percent of this amount is diverted; the remaining 57 percent, or 572,000 tons, is exported to the Altamont Landfill. San Francisco contracted with the Altamont Landfill in November 1989 for 15 million tons of disposal capacity. A disposal capacity assessment conducted by the City and County of San Francisco shows that San Francisco would not need additional disposal capacity until the year 2017 based on an anticipated gradual decrease in the amount of solid waste exported, due to increasing diversion.[11]

Current solid waste generation from existing buildings within the Geary Campus is estimated to be about 800 tons of solid waste per year. Please see Table IX.J.1, p. A.111, of Appendix J. Utilities and Community Services for the calculation of this estimate. Other wastes generated by the Geary Campus include hazardous waste and bio-medical waste. Hazardous and bio-medical wastes are further discussed in III.J. Hazardous Materials, pp. 197 - 211.

CHILD CARE SERVICES

Kaiser does not currently provide child care services for its employees. City Planning Code Section 314 requires new large-scale office and hotel developments in the City to provide child-care facilities. The Zoning Administrator for the City and County of San Francisco has determined that these requirements do not apply to the Kaiser Geary Campus project for reasons set forth in his November 12, 1996 letter (see Appendix E. Population, Employment and Housing, pp. A.48 - A.49, for the text of the Zoning Administrator's determination).[12]

WATER SUPPLY

Water in the City and County of San Francisco, including the Geary Campus, is provided by the San Francisco Water Department (SFWD). The SFWD serves a population of 2.3 million people, providing water to residential, commercial, and industrial customers in the San Francisco Bay region through direct deliveries to City customers and wholesale deliveries to 30 area water agencies.[13] The SFWD's water supply originates from a variety of sources, including the Hetch Hetchy Reservoir in Yosemite National Park, the Alameda Creek watershed in the East Bay, and the Peninsula Watershed on the San Francisco Peninsula. Water is transported to the San Francisco Bay Area through an extensive system of connecting reservoirs, pipelines, and tunnels.

Water consumption within the City and County of San Francisco is currently about 90 mgd.[14] Water consumption by the Geary Campus in 1995 was approximately 0.022 mgd, or about 0.02 percent of citywide consumption (see Table IX.J.2, p. A.112, of Appendix J. Utilities and Community Services). The following water supply mains presently serve the Geary Campus:

- 20- to 24-inch main in Divisadero Street between Garden Street and O'Farrell Street
- 8-inch main in St. Joseph's Avenue
- single 6-inch mains in Geary Boulevard and Broderick Street
- 4-inch main in O'Farrell Street
- 3-inch main in Garden Street

The SFWD has an on-going main replacement program that primarily provides for the renewal and improvement of older mains with leakage problems. The mains in the vicinity of the campus are in fairly good condition, according to the SFWD, and probably do not require replacement in the near future.[15]

WASTEWATER SYSTEMS

The City and County of San Francisco is served by a combined wastewater collection system in which the same system of pipes is used to carry sewage and stormwater runoff. The collection lines throughout the City operate by force of gravity. For this reason, the City is divided into two separate drainage basins according to the drainage direction. The project site is located in the Bayside drainage area, which drains toward the east side of the City.

In the vicinity of the San Francisco Kaiser Geary Campus, a utility corridor on Broderick Street, north of Geary Boulevard continues as a utility easement crossing Kaiser property between 2200 O'Farrell, an existing outpatient services building, and 2190 O'Farrell, an existing parking garage. The following sewer mains carry sewage and stormwater flows from the Geary Campus to the Southeast Water Pollution Control Plant for treatment:

- sewer main in the Broderick Street utility corridor of varying diameters (10-inch, 16-inch, and 18-inch);
- 18-inch sewer main along Geary Boulevard, connecting with the sewer main in the Broderick Street utility corridor; and
- 6-inch sewer main along the north side of the 2200 O'Farrell outpatient services building.

The City owns and operates three wastewater treatment plants, including the Southeast Water Pollution Control Plant. The Southeast plant has a design capacity to accommodate 250 mgd of flow. Currently, inflow to this plant ranges from an average of approximately 65 mgd during the night, when water use is lower, to about 85 mgd during the day, when water use is higher.[16] Please see III.O. Hydrology and Water Quality, p. 241, and Appendix L, p. A.123, for a discussion of overflows from the Southeast plant.

Irrigation for landscaping at the campus is minimal because landscaping consists of small areas surrounding some buildings, planters and sidewalk street trees. Therefore, wastewater generation is assumed to be about 5 percent less than water consumption at the Geary Campus (0.022 mgd), or about 0.021 mgd. This represents about 0.02 percent of the current average dry-weather inflow to the Southeast plant.

BRODERICK UTILITY CORRIDOR

The City's Broderick Utility Corridor extends along Broderick Street from Garden Street to O'Farrell Street. The utility corridor contains electrical distribution lines, telephone wires, a 10-inch to18-inch sanitary sewer main, and water supply mains. A PG&E vault exists along the corridor adjacent to Geary Boulevard between the construction trailers and the office annex building.

NOTES - Utilities and Community Services

1. Frank Scales, Assistant Deputy Chief, San Francisco Fire Department, telephone conversation, July 18, 1995.

2. San Francisco Fire Department, *Annual Report 1993-94*, June 1, 1995.

3. Kaiser Permanente Medical Center, *Emergency Response Plan*, October 6, 1994.

4. Allen Yee, Chief Engineer, Kaiser San Francisco Medical Center, telephone conversation, July 18, 1995.

5. Captain Heather Fong, Planning Division, San Francisco Police Department, letter, August 1, 1995.

6. Sergeant Roger Farrell, Richmond Station, San Francisco Police Department, telephone conversation, November 10, 1995.

7. Sergeant Layne Amiot, Park District, San Francisco Police Department, telephone conversation, November 10, 1995.

8. Sergeant Roger Farrell, Richmond Station, San Francisco Police Department, telephone conversation, November 10, 1995.

9. Sergeant Layne Amiot, Park District, San Francisco Police Department, telephone conversation, November 10, 1995.

10. Carl Dudley, Head of Security, Kaiser Permanente Medical Center, San Francisco, telephone conversation, June 19, 1995.

11. City and County of San Francisco, *Source Reduction and Recycling Element, Final Draft*, prepared by Brown, Vence & Associates, October 1992.

12. Robert Passmore, Zoning Administrator, City and County of San Francisco, letter to Alice Suet Yee Barkley, Esq., November 12, 1996. See Appendix E. Population, Employment and Housing.

13. City and County of San Francisco, *San Francisco Water and Power: A History of the Municipal Water Department and Hetch Hetchy System,* 1994.

14. Norman Lougee, Water Supply Engineer, San Francisco Water Department, telephone conversation, July 31, 1995.

15. Joseph Pelayo, Senior Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, November 14, 1995.

16. Tony Flores, Bayside Operations Superintendent, Southeast Water Pollution Control Plant, telephone conversation, June 14, 1996.

L. ENERGY

Existing infrastructure and supply are available to meet the electrical and natural gas needs of the new buildings proposed in the Kaiser Geary Campus Project. This section assesses whether or not the increased energy needs are wasteful, and whether they would substantially reduce existing supplies or capacities.

REGULATORY BACKGROUND

State Requirements

New and remodeled buildings in California are required to comply with the State Building Energy Efficiency Standards set forth in Title 24 of the California Administrative Code. These standards apply to new construction of both residential and non-residential buildings, and regulate the use of energy for heating, cooling, ventilation, water heating, and lighting.[1]

New buildings must also comply with the requirements of the Uniform Building Code which require specific energy saving measures such as insulation, window glazing, weather sealing, choice of building materials, and water and energy conserving plumbing fixtures.

ENERGY SUPPLY

Energy is the capacity for doing work and takes several forms. One form may be changed to another, such as burning natural gas to produce steam to drive a turbine which produces electricity. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat. Energy is measured in terms of the work it is capable of doing. Electric energy is usually measured in kilowatt hours (kWh); natural gas in British thermal units (Btu). One Btu is the quantity of heat necessary to raise the temperature of one pound of water one degree

Fahrenheit. A kilowatt (kW) is a measure of power, or heat flow rate, and one kWh equals 3,413 Btu per hour.

Electricity

PG&E serves 94,000 square miles of Northern and Central California with natural gas and electricity and is the public utility supplying electricity to the Geary Campus. PG&E depends on a variety of energy sources to meet its energy demands. Table IX.K.1, p. A.115, of Appendix K. Energy, shows the sources and volumes of electricity produced by PG&E in 1994. PG&E operates a grid distribution system that channels all electricity produced at the different sources into one large energy pool for distribution throughout the service territory. PG&E had an electric energy load of 88,600 gigawatt-hours (GWh) in 1994 and forecasts an increase to 116,100 GWh in 2013. In 1994, PG&E operated a net peak-electrical capacity of 21,851,000 kW and maintained a reserve margin of 13 percent above the peak demand. Electrical generation totaled 102,763,492 x 10^3 kWh.[2]

In order to meet demand, PG&E anticipates adding between 600 and 750 MW of electric resources by the year 2000 through new purchases, solicitations, improvements in its existing generating system, and further developments in regional operations efficiency. PG&E currently plans no new major construction projects for electric supply before the year 2000.[3]

Natural Gas

Natural gas accounts for approximately 30 percent of California's total energy requirements. This energy source has become increasingly popular over the past decade, particularly for electrical generation, due to its comparatively low price and because it is a relatively clean-burning fuel. About 84 percent of California's natural gas comes from outside the state, primarily from the southwestern United States.[4] Customers have a variety of service options including local utilities (such as PG&E) and private gas marketers.

Natural gas has become increasingly plentiful in supply in the last few decades, and the California Energy Commission expects natural gas supplies to remain plentiful over the next twenty years. Natural gas demand is expected to continue growing, and plans are in place to construct additional pipeline capacity that will allow California to receive an additional 2.1 billion cubic feet of natural gas per day.[5] In 1989 California consumed a total of 1,934 billion cubic feet of natural gas, and this consumption is projected to increase by 34 percent to 2,585 billion cubic feet by the year 2009.[6]

The Geary Campus purchases natural gas from the Enron Corporation which is based in Texas. Transmission and distribution to the Geary Campus is through local pipelines that are owned, maintained, and operated by PG&E. Transmission of natural gas is through the Transwestern Pipeline, a 4,500-mile pipeline extending from West Texas through Oklahoma, eastern New Mexico and the San Juan Basin in northwest New Mexico, to California. Local transmission lines to the Geary Campus, however, are owned and maintained by PG&E.

Petroleum Fuels

The single largest demand for energy in the state is from transportation, which depends on oil for almost 100 percent of its energy, and represents 48 percent of the total state-wide consumption of energy.[7] Transportation consumed 3,007 tera-Btu (TBtu, [x 10^{12}]) in 1989, and this number is projected to increase by 20.2 percent to 3,615 TBtu in 2011.[8] Petroleum fuels consist primarily of gasoline and diesel fuel for vehicles, fuel oils for industry and electrical power generation, and a variety of other liquid fuels, such as kerosene for jet fuel. Petroleum fuel is measured in gallons and contains approximately 125,000 Btu/gallon for gasoline and 138,700 Btu/gallon for diesel.[9] Crude oil is measured in barrels where 42 gallons equals 1 barrel, and 1 barrel equals 5.8 million Btu.

EXISTING ON-SITE ENERGY USE

The Geary Campus uses energy in the form of electricity and natural gas. In 1995, the Geary Campus, excluding the hospital, consumed a total of approximately 9 million kWh of electricity or about 0.009 percent of total PG&E generation in 1994 (102.8 billion kWh). Please see Table IX.K.2, p. A.116, of Appendix K. Energy. The amount of natural gas consumed by the Geary Campus, excluding the hospital, in 1995 totaled about 3.6 million cubic feet of natural gas. Excluding the hospital, Geary Campus annually consumes about 35 billion Btu (BBtu) of energy. Electricity use makes up approximately 89 percent of the Geary Campus' energy use, as measured in Btus. Transportation-related energy use at the Geary Campus stems from employee commutes, patient visits, and vendor visits.

NOTES - Energy

1. California Energy Commission, Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24), July 1995.

2. Pacific Gas and Electric Company, *Form 10-K, For Fiscal Year Ended December 31, 1994*, p. 17.

3. Pacific Gas and Electric Company, *Form 10-K, For Fiscal Year Ended December 31, 1994*, p. 17.

4. California Energy Commission, *The 1992-1993 California Energy Plan*, 1992.

5. California Energy Commission, *The 1992-1993 California Energy Plan*, 1992, p. 24.

6. California Energy Commission, *The 1992-1993 California Energy Plan*, 1992, Figure 4.

7. Dan Bergman, Representative, Enron Corporation, telephone conversation, September 21, 1995.

8. California Energy Commission, *Energy Efficiency Report*, October 1990.

9. California Energy Commission, *Local Energy Planning Handbook*, November 1981, Appendix A.

M. VEGETATION AND WILDLIFE

EXISTING CONDITIONS

Regulatory Context

Trees, including street trees and trees on public property, are subject to the Urban Forestry Ordinance (Article 16 of the Public Works Code, Sections 800 through Section 814, inclusive; amended May 1, 1995). This ordinance provides for in-lieu and replacement fees for removed trees, promotes the planting and retention of street trees, clarifies and simplifies the procedures for tree permits, and initiates a cost recovery fee schedule for street tree removal permits.[1]

Street Trees

All sites are completely developed. Pavement, existing concrete, or wooden structures occupy each of the sites proposed for redevelopment in the project. The Eden Property (Phase 1A site), comprising ten lots, has no street trees adjacent to the property along Geary Boulevard, Broderick Street, or Garden Street.

There are no street trees in front of the 2139 O'Farrell Street outpatient services building (Phase 1B site). Adjacent to the existing apartment building at 1401-17 Divisadero Street (Phases 1B and 2A construction) are a ginkgo tree and a eucalyptus tree.

Three eucalyptus street trees front the parking garage at 2190 O'Farrell Street, and four eucalyptus street trees are adjacent to 2200 O'Farrell Street (Phase 1C site). Seven sycamore (London plane) street trees are adjacent to the paved lot facing Geary Boulevard between the 2190 O'Farrell Garage (Phase 1C site) and 350 St. Joseph's Avenue (Phase 2B site).

The Texaco Site at 1455 Divisadero Street (Phase 2A), a former gas station, is now a vacant lot surfaced with gravel. Annual, mostly non-native, weedy vegetation occurs spontaneously along the fence at the perimeter of the site.[2]

In the vicinity of 350 St. Joseph's Avenue (Phase 2B site), street trees include eight bottlebrush on St. Joseph's Avenue and seven eucalyptus species and one sycamore tree on Geary Boulevard.

Sensitive Species

There are no documented sensitive plants or animal species on the sites, and none would be expected to occur because of the highly altered condition of the sites, and the relatively long history of human occupation. No sensitive plant or animal species nor habitat for sensitive species were observed during the site visit by an EIP Associates biologist in June 1995.

NOTES - Vegetation and Wildlife

1. Section 802(f) defines "injure" or "injury" as any act which harms or damages a street tree. Section 802(g) defines an in-lieu fee as equal to the replacement value of a tree(s) to be removed or trees that have been destroyed. Section 802(h) and Section 810 define "landmark trees". Section 804 gives the Department of Public Works jurisdiction over removal and planting of street trees and other landscape material in public spaces. Section 806(b) requires recording of permits for the removal or planting of street trees and may require that another street tree be planted in the place of the removed tree. Section 807 gives the Department of Public Works the authority to review and comment on site development plan applications that pertain to the planting, alteration, or removal of street trees, and directs the Department to develop and implement an In-lieu Planting Program to offset the loss of street trees due to removal, destruction, or death. Section 808 declares it unlawful to injure or destroy a street tree or other landscaped material on public property and provides for protection of street trees from damage during construction.

2. Non-native plant species observed include mallow, mustard, red-stem filaree, prickly sow thistle, bur clover, Indian sweet clover, cat's ear, horseweed, foxtail barley, fescue, and rabbit's foot grass. Native plant species observed include pineapple weed and a single unidentified navarretia.

N. SOILS, GEOLOGY, AND SEISMICITY

GEOTECHNICAL INVESTIGATIONS

Two geotechnical investigation reports were prepared for the project site by Kleinfelder, Inc., consulting geologists and engineers.[1] Field investigation for the geotechnical reports included drilling ten soil borings to depths between 70 and 100 ft. below ground level, logging the borings during drilling, sampling and visually classifying material from the borings, and testing the in-place support capacity of the subsoil. Soil and groundwater conditions encountered during the drilling were recorded. Laboratory testing included examining such physical properties as moisture content, density, strength, compressibility, and corrosiveness. These field and lab tests provided technical data used to formulate recommendations for foundation, basement wall, and building design. Geo-seismic database and literature research provided information on local and regional geology, faults, and seismic activity needed to complete the design recommendations. The recommendations in the geotechnical reports cover foundation support, basement walls, slabs-on-grade, earthwork (excavation, backfill, temporary dewatering), pit-wall shoring and underpinning of adjacent structures, seismic considerations (liquefaction, settlement, soil profile and near-fault factors), and corrosivity of soils. Unless otherwise noted, information in this section is derived from the two geotechnical reports, telephone conversations with the authors of these reports, and a memorandum from the authors, summarizing the reports.[2] Several terms pertinent to San Francisco's geologic and seismic conditions, used in the remainder of this chapter, are defined in the glossary subsection (see Glossary, pp. 233 - 234).

GEOLOGY AND SOILS

Regional Conditions

There are general conditions of location, composition, and engineering characteristics of geologic units (rock and sediment) that affect design criteria for buildings constructed in San Francisco. The geology of the northern end of the San Francisco peninsula, where the City is located, is

dominated by the North Coast segment of the San Andreas fault. The main trace of the fault divides ancient Franciscan assemblage sandstones, cherts, and shales northeast of the fault trace, from younger claystones, siltstones, and sandstones southwest of the fault trace. The Franciscan rocks beneath the City are not particularly permeable, except where fractured, and generally are stable under static and seismic conditions. They are relatively difficult to work in excavations, but tend to retain their natural stability in most post-construction situations.[3]

The Franciscan rocks are buried by a few feet to a few hundred feet of recent sediments, such as estuarine clay, dune sand, and river sand and gravel. These sediments have been eroded and redeposited to form much of the present ground surface. Static and seismic stability of the sediments varies considerably, as does their permeability, dependent upon such characteristics as grain size, degree of compaction, and saturation. The sediments are relatively easy to work in excavations, but usually need some modification (such as shoring or compaction) to perform adequately in free-standing slopes or as foundation support.[4]

Site Characteristics

Topography

The Geary Campus slopes down to the northeast at an average gradient of about 5 percent. Elevations within the campus are between 140 ft. and 200 ft. above San Francisco City Datum (+140 ft. to +200 ft. SFCD).[5] In the vicinity of the campus, sub-surface materials generally consist of dune sand (nearly incompressible, but subject to vibration and displacement during large earthquakes) and interbedded clay, silt, and sand (old alluvial sediments mixed with wind-blown material); over Franciscan sandstone bedrock (hard, sound rock).[6]

Soils

Approximately 2 ft. of loose to medium-dense sandy fill forms the ground surface at the vacant Texaco site (Phase 2A/1455 Divisadero Street site). Most of the remainder of the Geary

Campus is paved or covered with existing structures. As much as 10 ft. of sandy fill was encountered in test borings at various points on the campus. The near-surface sediments, beneath the fill or existing structures, consist of alluvial deposits of stiff clay and silt interbedded with medium-dense to dense sand. They extend about 35 ft. below the ground surface. Beneath the alluvium on the western portion of the campus (Phase 2B/New 350 St. Joseph's Avenue and 1C/2295 Geary Boulevard sites) is more than 65 ft. of dense to very dense dune sand. A layer of clayey sand about 10 ft. thick was encountered within the dune sand in the eastern portion of the campus (beneath the Phase 2A/1455 Divisadero Street and 1B/2139 O'Farrell Street sites), increasing to about 18 ft. thick beneath the Phase 1A/2290 Geary Boulevard site. This layer, located at an approximate depth of 45 ft., is slightly compressible, and not as competent (capable of providing adequate foundation support) as the sands above and below it. Because the subsoils are sands that are dense or have significant silt or clay content, they have a low susceptibility to liquefaction (see Glossary, p. 233). Chemical tests indicate the subsoils are slightly to moderately corrosive to exposed metals, but are not corrosive to cement.

Bedrock

The depth to bedrock is greatest at the eastern end of the Geary Campus, estimated to be about 200 ft. below the ground surface, and is at least 90 ft. below the ground surface near the center of the campus (northeast corner of the intersection of St. Joseph's Avenue and O'Farrell Street). Bedrock is about 40 ft. below the ground surface at the northwest corner of that intersection, and from 3 to 9 ft. below the ground surface under the hospital complex at the western end of the campus. The bedrock consists of interbedded sandstone, shale, and serpentine. Bedrock is not expected to be encountered during excavation for the proposed project.

Groundwater

The local groundwater level is seasonally influenced and artificially controlled by dewatering systems in nearby structures. It is between 30 and 80 ft. below the ground surface (+108 ft. to

+125 ft. SFCD), and is expected to be intersected during foundation excavation and construction for the proposed project.

SEISMICITY

Regional Conditions

The Coast Ranges province, bounded on the west by the continental shelf and on the east by the Great Valley, is one of the most active seismic regions in the United States. Numerous low- and moderate-intensity earthquakes occur within this region every year. About a dozen large-intensity and great earthquakes, causing deaths and property damage, have occurred during recorded history. The major faults zones in the San Andreas fault system (as discussed in the "Fault Location and Activity" section below) are the sources of these earthquakes, and are likely to be the sources of future earthquakes.[7] The active fault zones that cause these earthquakes affect development in San Francisco. Even though no known traces of active faults pass through the City, facilities for human occupancy are required to be designed to withstand the anticipated effects of seismic vibration (groundshaking) generated by these faults.[8]

Groundshaking

The direct effects of seismically induced groundshaking result from a combination of the cyclic horizontal and vertical movements of the ground during an earthquake, the coherence of the geologic material being shaken, and the quality of construction supported on that material. Seismic ground motions range from very low intensities which cannot be detected, except by specialized equipment, to high intensities that can cause buildings to be shaken apart and heavy objects to be thrown into the air. One earthquake may create the entire range of effects, depending on the geologic conditions at a given site, the site's distance from the source of the earthquake, and the design of the buildings on the site. Bedrock formations (such as the Franciscan sandstone under the Kaiser Hospital) tend to be less affected by groundshaking than

are unconsolidated sediments (such as the clay and dune sand under the rest of the Geary Campus).

As a general rule, the intensity of groundshaking increases with proximity to the source of the earthquake. However, given similar location and seismic energy output, the least amount of damaging vibration would occur on a site that was completely composed of bedrock. A site underlain by major thicknesses of sediments (such as the alluvium beneath most of the Geary Campus) would experience more severe vibration because of the sediments' tendency to deform to a greater degree than the bedrock.[9] For structures supported on sediments, the combination of ground deformation and susceptible building design appears to determine the extent of damage, with well-constructed buildings founded on dense undisturbed native deposits performing considerably better than moderately or poorly constructed buildings on unengineered fill.[10]

Fault Location and Activity

For the purposes of describing the energy released by an earthquake, i.e., the "size" of the design (or scenario) earthquake of a particular fault segment, the concept of a maximum credible earthquake (MCE) (Glossary, p. 234) of a particular Richter magnitude has been replaced in modern seismologic analyses with the moment magnitude (Mw) (Glossary, p. 234) of the characteristic earthquake for that fault segment. This has become necessary because the Richter Scale "saturates" at the higher magnitudes; that is, the Richter Scale has difficulty differentiating the size of earthquakes above magnitude 7.5. The Mw scale is proportional to the area of the fault surface that has slipped, and, thus is directly related to the length of the fault rupture. Although the Mw scale numbers appear lower than the traditional Richter magnitudes, they convey more precise (and more useable) information to geologic and structural engineers, and have become the basis for establishing the seismic parameters for building codes in California. Both scales are used in this document to provide comparison and transition between the Richter scale to the Mw scale.

The San Andreas, San Gregorio, Hayward, and Calaveras fault zones (6.5 miles west, 13 miles west, 12 miles east, and 22 miles east of the Geary Campus, respectively) are historically active faults in the San Andreas fault system (during the last 200 years). The northern segment of the San Andreas fault is capable of generating a maximum credible earthquake (MCE) of Richter magnitude M8.3 (Mw 7.1); the Hayward and the Calaveras faults, MCEs of M7.5 (Mw 7.3 for the Hayward fault and Mw 6.9 for the Calaveras fault); and the San Gregorio, an MCE of 7.25 (Mw 7.1).[11] Earthquakes of these magnitudes are sufficient to create ground accelerations greater than 0.5g (50 percent of the acceleration of gravity) (see Glossary, p. 233) in bedrock and in unconsolidated sediments – severe enough to cause major damage to structures, foundations, and underground utility lines.[12]

After the 1989 Loma Prieta earthquake, the United States Geological Survey estimated the probability of at least one large earthquake (M7 or greater) in the San Francisco Bay region within the 30-year period between 1990 and 2020 at about 67 percent.[13] Recent studies by the United States Geological Survey indicate, unofficially, that the probability may be about 90 percent.[14] On the San Francisco Peninsula segment of the San Andreas fault, the probability is estimated at about 23 percent that an M7 or greater earthquake would occur in this time-frame.[15]

Site Characteristics

Regulatory Background

The Geary Campus is not in an Alquist-Priolo Earthquake Fault Zone (see Glossary, p. 233), indicating that there are no known active fault traces crossing the campus, and that there is little chance that the surface of the site would be ruptured by a fault.[16] The campus is not in the City's Special Geologic Study Areas for potential ground failure hazards (landsliding, liquefaction) or potential inundation hazards (tsunami, reservoir failure).[17] As such, the City does not require any special site investigations, beyond those required by the San Francisco Building Code, to establish appropriate engineering designs for the construction sites.[18]

Site Response

Based on records of previous earthquakes, the Geary Campus will be subject to very strong seismic groundshaking (Grade C on the San Francisco Intensity Scale)[19] during an earthquake the size of the 1906 San Francisco earthquake (estimated Richter magnitude M8.3). The effects of Grade C groundshaking intensities are equivalent to Modified Mercalli Intensity VIII (see Glossary, p. 234): viz., slight damage to specially designed structures; considerable damage to ordinarily substantial buildings, including partial collapse; great damage to poorly built structures, including dislodged wall panels and collapse of chimneys. Grade C groundshaking is strong enough to overturn heavy furniture, and to be felt by persons in moving vehicles.[20]

Condition of Existing Buildings

Kaiser's minimum standards for earthquake safety are based mainly on the ATC-14 Guidelines, a consensus-based evaluation method that identifies buildings that could cause death, serious injury or entrapment of occupants during the largest earthquakes expected in an area.[21] Kaiser has been systematically upgrading the seismic safety conditions in their buildings since 1984, and periodically rates the structures' conditions with respect to the current San Francisco Building Code. Such a survey was carried out for the major structures on the Geary Campus in January 1996; the survey did not include buildings on the Eden Property (Phase 1A/2290 Geary Boulevard site).[22] Buildings rated as a "life-safety concern" do not meet Kaiser's minimum standards for earthquake safety; nor do these buildings meet current San Francisco Building Code seismic requirements. Evacuation of these structures following a major earthquake could be necessary. Buildings rated as a "functional concern" meet Kaiser's minimum standards for earthquake safety, but they do not meet the current San Francisco Building Code seismic requirements. Although immediate post-earthquake evacuation of these structures might not be necessary, their ability to continue to fulfill their stated functions would depend on the extent of structural and non-structural damage.

The outpatient services buildings at 2139 O'Farrell (Phase 1B site) and 2200 O'Farrell Street (Phase 1C/2295 Geary Boulevard site) and the apartment building located at 1401-17 Divisadero Street (Phase 2A site) are rated as of "life safety concern" in the January 1996 survey. The parking structure at 2190 O'Farrell Street, the group of wood-framed modular buildings at the 2200 O'Farrell Street Annex (Phase 1C/2295 Geary Boulevard site) and the outpatient services building at 350 St. Joseph's Avenue (Phase 2B/New 350 St. Joseph's Avenue site) are rated as "functional concerns."[23]

The seismic condition of existing buildings on the Eden Property that are occupied by Kaiser (2262-66 and 2280-82 Geary Boulevard) varies from structure to structure. The structures leased by Kaiser at 2262-66 and 2280-82 Geary Boulevard were upgraded during the early 1980s, and are, for the most part, in better condition that the other structures on the Eden Property that have not been upgraded to the same extent. Because these buildings have not been seismically upgraded, and because the other upgrades preceded the current revisions to the San Francisco Building Code, these structures would remain at least a "functional concern" according to the Kaiser seismic safety standards.[24] The remaining buildings on the Eden Property generally are older structures that have not been seismically upgraded.

Non-Structural Considerations

The Association of Bay Area Governments has produced computer models of major earthquakes on various segments of San Francisco Bay Area faults which indicate that non-structural damage would occur throughout the project area during a M7.1 earthquake on the Peninsula segment of the San Andreas fault or a M7.3 earthquake that ruptured the entire length of the Hayward fault.[25] However, this does not provide detail for the particular circumstances of medical care facilities such as hospitals and out-patient service offices. Beginning with its 1982 landmark study, *Earthquake Planning Scenario for a Magnitude 8.3 Earthquake on the San Andreas Fault in the San Francisco Bay Area*, the California Division of Mines and Geology has consistently assumed that "all critical facilities such as hospitals ... will require standby generating equipment and emergency fuel supplies," for as long as 72 hours following a great earthquake, because, even

though the buildings may be standing, without lifelines (water supply, communications, electrical power, and other similar facilities), medical care would be severely restricted.[26] Such factors as magnitude, duration and location of the earthquake, intensity of groundshaking at the building site, and the structural integrity of the building would affect the building's post-earthquake condition. The time of day of the earthquake, and even the day of the week on which the earthquake occurs, would affect the number of people in the building who might need medical care following the earthquake. Other considerations specifically applicable to outpatient service offices include the increased likelihood of personal injuries to elderly patients and those with mobility limitations, the damage of complex electronic monitoring and testing equipment, the destruction of medical supplies, and the possible loss of access to the buildings.[27] These are non-structural issues that must be resolved through emergency response policies and plans of the individual medical care institutions.

GLOSSARY

Alquist-Priolo Earthquake Fault Zone: In 1972 the State of California began delineating special studies zones around active and potentially active faults in the state. The zones are revised periodically, and extend 200 to 500 ft. on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 ft. on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction within the Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

Characteristic Earthquake: The moment magnitude (see below) of the seismic event considered representative of a particular fault segment, based on seismologic observations and statistical analysis of the probability that a larger earthquake would not be generated during a given timeframe. In the Bay Area, the characteristic earthquake for the Peninsula segment of the San Andreas fault has a moment magnitude (M_w) of 7.1; the entire Hayward fault, a M_w of 7.3; and the Northern segment of the Calaveras fault, M_w 6.9. The term "characteristic earthquake" replaces the term "maximum credible earthquake" (see below) as a more reliable descriptor of future fault activity.

Horizontal ground acceleration: The speed at which soil or rock materials are displaced by seismic waves. It is measured as a percentage of the acceleration of gravity (0.5g = 50 percent of 32 ft. per second squared). *Peak* horizontal ground acceleration is the maximum acceleration expected from the maximum credible earthquake (MCE) predicted to affect a given area. *Repeatable* acceleration refers to the acceleration resulting from multiple seismic shocks. *Sustained* acceleration refers to the acceleration produced by continuous seismic shaking from a single, long-duration event.

Liquefaction: A response to severe groundshaking that can occur in loose soils. This transformation from a solid state to a liquid state ("quicksand"), as a response to seismically induced groundshaking, can cause ground settling and landsliding. Earthquake-induced liquefaction does not affect bedrock; however, it does affect certain types of alluvium under conditions of saturation. The characteristics of a liquefaction-prone deposit include: (1) uniformly fine sand or sandy soil; (2) saturated conditions - usually by groundwater; (3) loose to moderately dense compaction; (4) little or no clay-sized particles to act as binders. If these conditions occur within about 30 to 40 ft. below the

ground surface, vibration sufficiently violent to increase pore pressure beyond the shear strength of the sand particles could cause such soils to liquefy. Any structures supported on the soils would be subject to tilting or settlement (sometimes very violent and rapid) as the supporting capabilities of the liquefying soil diminished.

Maximum Credible Earthquake (MCE): The largest Richter magnitude (M) seismic event that appears to be reasonably capable of occurring under the conditions of the presently known geological framework. This term has been replaced by "characteristic earthquake," which is considered a better indicator of probable seismic activity on a given fault segment within a specific timeframe.

Modified Mercalli intensity scale: A 12-point scale of earthquake intensity based on local effects experienced by people, structures, and earth materials. Effects range from those which are detectable only by seismicity recording instruments (I) to total destruction (XII). Most people will feel Intensity IV ground motion indoors and Intensity V outside. The scale was developed in 1902 by Giuseppi Mercalli for European conditions, and was adapted in 1931 by American seismologists Harry Wood and Frank Neumann to take modern structural features into account.

Moment Magnitude (Mw): A logarithmic scale used by modern seismologists to measure the amount of energy released by an earthquake. For the purpose of describing this energy release, i.e., the "size" of the design earthquake of a particular fault segment, the moment magnitude (Mw) of the characteristic earthquake for that segment has replaced the concept of a maximum credible earthquake of a particular Richter magnitude. This has become necessary becasue the Richter scale "saturates" at the higher magnitudes; that is, the Richter scale has difficulty differentiating the size of earthquakes above M7.5. The Mw scale is proportional to the area of the fault surface that shifts (slips) during an earthquake, and, thus is directly related to the length of the fault rupture. It reflects the amount of "work" (in the sense of classical physics) done by the earthquake. Although the numbers of the Mw scale may appear lower than those of the traditional Richter magnitudes, they convey more precise (and more useable) information to geologic and structural engineers, and have become the basis for establishing the seismic parameters for building codes in California.

Richter Magnitude Scale: A logarithmic scale developed in 1935/36 by Dr. Charles F. Richter and Dr. Beno Gutenberg to measure earthquake magnitude (M) by the amount of energy released, as opposed to earthquake intensity as determined by local effects on people, structures, and earth materials (for which, see Modified Mercalli Intensity Scale). Each whole number on the Richter scale represents a 10-fold increase in amplitude of the waves recorded on a seismogram and about a 31-fold increase in the amount of energy released by the earthquake. Because the Richter scale tends to saturate above about M 7.5, it is being replaced in modern seismologic investigations by the moment magnitude (Mw) scale (see above).

Tsunami: A sea wave produced by any large-scale, short-duration disruption of the ocean floor, principally by a shallow submarine earthquake, but also by submarine earth movement, subsidence, or volcanic eruption.

NOTES - Soils, Geology, and Seismicity

1. a) Kleinfelder, Inc., *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus) San Francisco, California*, September 15, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

   b) Kleinfelder, Inc., *Geotechnical Investigation Report Proposed Kaiser Expansion Eden Property (Phase 1A) San Francisco, California*, November 28, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

2. Kleinfelder, Inc., *Kaiser Expansion, Geary Campus, San Francisco, California*, Memorandum to G.J. Burwasser, EIP Associates, October 20, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

3. Schlocker, J.C., *Geology of the San Francisco North Quadrangle, California*, United States Geological Survey, Professional Paper 782, Washington, D.C., 1974, pp. 3 - 5 and Plate 1.

4. Schlocker, J.C., *Geology of the San Francisco North Quadrangle, California*, United States Geological Survey, Professional Paper 782, Washington, D.C., 1974, pp. 93 - 99 and Plates 1 & 2.

5. San Francisco City Datum is 8.66 ft. above Mean Sea Level Datum.

6. Schlocker, J.C., *Geology of the San Francisco North Quadrangle, California*, United States Geological Survey, Professional Paper 782, Washington, D.C., 1974, pp. 93 - 99 and Plates 1 & 2.

7. a) Jennings, C.W., *Fault Activity Map of California and Ad acent Areas, with locations and ages of Recent Volcanic Eruptions*, Geologic Data Map No. 6, California Division of Mines and Geology, 1994.

   b) Goter, S.K., *Seismicity of California, 1808 - 1987*, National Earthquake Information Center, United States Geological Survey, Open-File Report 88-286, 1988.

8. a) Seismology Committee, Structural Engineers Association of California, *Recommended Lateral Force Requirements and Tentative Commentary,* San Francisco, California, 5th edition, revised June 30, 1988, p. 1.

   b) City and County of San Francisco Municipal Code, *Building Code*, adopted December 14, 1995, Chapters 16, 18, 33, A16 and A33.

9. Borcherdt, R.D., J.F. Gibbs and K.R. Lajoie, *Map Showing Maximum Earthquake Intensity Predicted in the Southern San Francisco Bay Region, California, for Large Earthquakes on the San Andreas and Hayward Faults*, United States Geological Survey, Miscellaneous Field Studies Map MF-709, 1975, p. 11 and Sheet 2.

10. Montgomery, D.R., "Representative Damage Photographs from the Loma Prieta Earthquake," in: *The Loma Prieta (Santa Cruz Mountains), California, Earthquake of 17 October 1989*, S.R. McNutt and R.H. Sydnor, editors, California Division of Mines and Geology, Special Publication 104, 1990, pp. 113 - 120, see p. 117.

11. Association of Bay Area Governments, *The San Francisco Bay Area - On Shaky Ground*, Publication Number P95001EQK, April 1995, p. 5.

12. Davis, J.F., J.H. Bennett, G.A. Borchardt, J.E. Kahle, S.J. Rice, and M.A. Silva, *Earthquake Planning Scenario for a Magnitude 8.3 Earthquake on the San Andreas Fault in the San Francisco Bay Area*, California Division of Mines and Geology, Special Publication 61, 1982, maps and accompanying text on adjacent pages.

13. Working group on California earthquake probabilities, *Probabilities of Large Earthquakes in the San Francisco Bay Region, California*, United States Geological Survey Circular 1053, 1990, p. 29.

14. Schwartz, D.P., and W.H. Bakun, Workshop: "Geologic Structures Beneath South San Francisco Bay - A Seismic Hazard?", United States Geological Survey Coordinating Organization for Northern California Earthquake Research and Technology (CONCERT), + 7, 1994, reported in *San Francisco Chronicle*, + 8, 1994, p. 1.

15. Working group on California earthquake probabilities, *Probabilities of Large Earthquakes in the San Francisco Bay Region, California*, United States Geological Survey Circular 1053, 1990, p. 29.

16. *Alquist-Priolo Earthquake Fault Zoning Act*, California Public Resources Code, Division 2. "Geology, Mines and Mining," Chapter 7.5 "Earthquake Fault Zones," Sections 2621 through 2630; signed into law December 22, 1972, amended 1974, 1975, 1976, 1979, 1991, 1993 and 1994. Prior to 1994 this legislation was known as the Alquist-Priolo Special Studies Zones Act.

17. City and County of San Francisco, *Community Safety Element of the San Francisco General Plan*, adopted by Resolution 7241 of the San Francisco Planning Commission, September 12, 1974, maps on pp. 9, 10, 11, and 16.

18. Seismic safety standards for inpatient facilities, such as Kaiser Hospital (as distinct from the existing or proposed outpatient services facilities), are regulated by the state's Hospital Seismic Safety Act (commencing with Section 15000 of Division 12.5 of the Health and Safety Code), adopted in 1973 and updated by subsequent legislation. The intent of the Act is not that hospitals be undamaged by earthquakes, but that they be functional following earthquakes. Consequently, requirements for remediation and prevention of potential seismic hazards beyond the basic standards of the Uniform Building Code are applied to major hospital buildings. Where local jurisdictions have more restrictive requirements, those requirements are enforced by the state.

19. Wood, H.O., "Distribution of apparent intensity in San Francisco," in: *The California Earthquake of April 18, 1906, Report of the State Earthquake Investigation Commission*, Carnegie Institute, Publication Number 87, Washington, D.C., pp. 224 - 225.

20. Borcherdt, R.D., J.F. Gibbs and K.R. Lajoie, *Map Showing Maximum Earthquake Intensity Predicted in the Southern San Francisco Bay Region, California, for Large Earthquakes on the San Andreas and Hayward Faults*, United States Geological Survey, Miscellaneous Field Studies Map MF-709, 1975, p. 11 and Sheet 2.

21. Applied Technology Council, *Evaluating the Seismic Resistance of Existing Buildings*, ATC-14 Guidelines, Redwood City, 1987 (Federal Emergency Management Agency, NEHRP *Handbook for Seismic Evaluation of Existing Buildings*, FEMA-178, June 1992).

22. Poland, Chris D., Degenkolb Engineers, *Condition of Buildings at the San Francisco Medical Center*, letter report to M. Sheats, Kaiser Foundation Health Plan, Inc., Degenkolb Job Number 95280, January 12, 1996.

23. Poland, Chris D., Degenkolb Engineers, *Condition of Buildings at the San Francisco Medical Center*, letter report to M. Sheats, Kaiser Foundation Health Plan, Inc., Degenkolb Job Number 95280, January 12, 1996.

24. Poland, Chris D., Degenkolb Engineers, telephone conversation, April 12, 1996.

25. Association of Bay Area Governments, *On Shaky Ground, City Maps: City of San Francisco*, Publication Number P95002EQK-SF-1, April 1995.

26. Davis, J.F., J.H. Bennett, G.A. Borchardt, J.E. Kahle, S.J. Rice, and M.A. Silva, *Earthquake Planning Scenario for a Magnitude 8.3 Earthquake on the San Andreas Fault in the San Francisco Bay Area*, California Division of Mines and Geology, Special Publication 61, 1982, pp. 125 - 134.

27. Steinbrugge, K.V., J.H. Bennett, H.J. Lagorio, J.F. Davis, G.A. Borchardt, and T.R. Toppozada, *Earthquake Planning Scenario for a Magnitude 7.5 Earthquake on the Hayward Fault in the San Francisco Bay Area*, California Division of Mines and Geology, Special Publication 78, 1987, pp. 87 - 93.

O. HYDROLOGY AND WATER QUALITY

WATER QUALITY MANAGEMENT POLICIES FOR THE PROJECT AREA

In the project area, water resources policies are administered by several agencies, including the City and County of San Francisco Water Department (SFWD), the California Regional Water Quality Control Board, San Francisco Bay Region; the State Water Resources Control Board (State Water Board), and the U.S. Environmental Protection Agency (USEPA). Development of the project may be subject to the federal Clean Water Act, as enforced by the USEPA and CAL-EPA, the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and related California Code of Regulations sections administered by the State Water Board and the San Francisco Bay Regional Board; and permitting and licensing requirements that occur during development review by the City and County of San Francisco. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) applies to the project and contains the numerical and qualitative water quality objectives for the San Francisco Bay. Other applicable regulations are outlined in Appendix L. Hydrology and Water Quality, pp. A.121 - A.124.

Water quality objectives for San Francisco Bay are achieved primarily through the establishment and enforcement of Waste Discharge Requirements for point and non-point wastewater dischargers. Prior to authorizations for waste discharge by the Regional Board, the Porter-Cologne Act requires reports of waste dischargers to be filed. The Regional Board then prescribes Waste Discharge Requirements under a provision of the Porter-Cologne Act. As the wastewater dischargers for San Francisco, the wastewater treatment plants in the City operate under individual National Pollutant Discharge Elimination System (NPDES) permits. Thus, all wastewater discharges from the City and County of San Francisco are subject to Basin Plan and NPDES permit requirements.

Kaiser Wastewater Discharge Permit

The City and County of San Francisco uses a combined sewer system, which collects and transports municipal sewage and stormwater to the City's wastewater treatment plants. The

Southeast Water Pollution Control Plant, located on the east side of the City, treats wastewater and stormwater runoff from the Kaiser Geary Campus. To meet the NPDES requirements set for this treatment plant, the City and County of San Francisco requires industrial waste dischargers, such as Kaiser, to obtain a discharge permit from the City.[1] The Geary Campus currently discharges under a Class I permit issued by the City's Bureau of Environmental Regulation and Management to Significant Industrial Users.[2] The permit limits the amount of pollutants that can be released by Kaiser into the City's sewer system, and requires Kaiser to monitor pollutant levels in its own discharges through a self-sampling program. As part of this self-sampling program, Kaiser must submit quarterly reports to the City describing the laboratory results including any permit violations that may have occurred. In addition, if a change is planned in the volume of the wastewater discharge (defined in the permit as a 25 percent or greater variance from the average monthly flow), or in its chemical characteristics, Kaiser must notify the Bureau of Environmental Regulation and Management at least 30 days prior to these changes and must indicate whether these changes could result in noncompliance with permit requirements. The Bureau of Environmental Regulation and Management would review the changes and may require an amended permit before the commencement of altered discharge.[3] The City has indicated that Kaiser does not currently experience problems in complying with its permit.[4]

Basin Plan Policies for Groundwater Quality

The Regional Board also has responsibility over groundwater quality in the San Francisco Bay Basin. However, its role in regulating groundwater quality is different from its role in regulating surface water quality. For groundwaters, the Regional Board emphasizes the regulation of sites where groundwater quality objectives are not being met, where cleanup is required and/or under way, and where no further waste discharges will be allowed. In contrast, the regulation of surface water quality focuses on regulating on-going discharges to meet water quality objectives in receiving waters. The Regional Board currently supports several programs to regulate potential pollution sources, to clean up polluted sites, and to protect groundwater.

The Regional Board also has designated beneficial uses for individual groundwater basins in the San Francisco Bay Area. The Kaiser Geary Campus is located within the San Francisco Sand Dune groundwater basin. For this groundwater basin, the Basin Plan identifies agricultural water supply as an *existing* beneficial use. Industrial process water supply and industrial service water supply are identified as *potential* beneficial uses (italics added for emphasis). In addition, the Regional Board considers all groundwater, including the San Francisco Sand Dune basin, suitable, or potentially suitable, for municipal or domestic water supply.[5]

To protect beneficial uses, the Basin Plan establishes groundwater quality objectives that consist of narrative objectives combined with a limited number of numerical objectives. Because groundwaters generally have a beneficial use of municipal and domestic drinking water source (existing or potential), which require stricter regulation, other appropriate agencies such as the USEPA and the California Department of Health Services have provided the numerical criteria for Regional Board consideration as groundwater objectives.[6]

STORMWATER RUNOFF

Site Drainage Characteristics

The City and County of San Francisco operates a combined sewer system in which wastewater and stormwater are collected in the same collection lines and are treated at the City's wastewater treatment plants prior to discharge. Because the collection lines largely operate by gravity, the topography of San Francisco naturally divides the City into two collection basins: Oceanside and Bayside. Wastewater and stormwater from the Geary Campus in the Bayside Drainage are directed to the Southeast Water Pollution Control Plant on the east side of the City.

The area of the Geary Campus is about five acres. Except for a small area of vacant or landscaped space, almost all of the Geary Campus is covered with buildings or paved with concrete, asphalt, or other materials, and is impermeable to water infiltration. Little infiltration

of rainfall into the subsurface occurs, and almost all rainfall results in stormwater runoff that is treated at the Southeast Water Pollution Control Plant.

Overflows from Southeast Water Pollution Control Plant

During rainy weather, the volume of stormwater runoff in the Bayside Drainage sometimes exceeds the treatment capacity of the Southeast Water Pollution Control Plant. When this occurs, the excess flow, comprised of untreated sewage and stormwater runoff, overflows through a number of outfalls along the City's shoreline into the San Francisco Bay and the Pacific Ocean. The City has plans in place to reduce the number and frequency of untreated wastewater overflows. Please see Appendix L, pp. A.121 - A.124, for further detail on these plans.

GROUNDWATER HYDROLOGY

Groundwater is defined as subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated. The Kaiser Geary Campus lies above two aquifers in the San Francisco Sand Dune Hydrogeologic Area. An unconfined aquifer composed of sandy material lies directly beneath the Kaiser Geary Campus. The unconfined aquifer is inter-layered with clay layers, and underlain with a thick clay layer. The bottom clay layer forms a barrier that impedes the vertical movement of groundwater. This aquifer extends from just below ground surface to a depth of approximately 30 ft.

A second aquifer beneath this unconfined aquifer consists of an approximately 60-ft.-thick, saturated sand layer. This lower aquifer is under artesian pressure, meaning that the aquifer is completely filled with groundwater and is overlain by a confining layer, which in this case is the clay layer separating it from the upper, unconfined, aquifer.[7] Soil borings indicate that the lower aquifer produces a larger volume of water than the upper aquifer.[8]

A Phase I Preliminary Environmental Site Assessment completed by Kleinfelder for Kaiser concluded that groundwater could be expected at depths of approximately 33 ft. below the ground surface of the project area and that groundwater may be encountered at greater depths (approximately 80 ft.) on the west side of the project site. Groundwater flow is generally in the northeast direction. The groundwater is not currently used for domestic purposes.[9]

GROUNDWATER CONTAMINATION

Two cases of groundwater contamination exist on the project site. The first case is contamination of groundwater under the 2130 O'Farrell Street parking garage with tetrachloroethylene (also called perchlorethylene, or PCE). A former occupation of this property was a steam-cleaning facility, which also conducted dry-cleaning. Through previous research and investigation conducted for the site, it is believed that PCE, a common constituent used in dry-cleaning, entered the groundwater through a spill of the solvent down a now-abandoned well. The PCE plume migrated under the 2130 O'Farrell parking garage site and the vacant Texaco site that is east of the parking garage, and contaminated the unconfined and the confined aquifers. An interim remediation system consisting of shallow and deep groundwater pumping wells has been constructed by Kaiser to extract groundwater that is polluted by PCE at the 2130 O'Farrell site. Monitoring wells have been established around the parking garage to gauge the levels and flow of the groundwater. Kaiser reports that course removal of contaminants of on-site groundwater by the pumping system is complete, and residual contamination is being biodegraded. A Remedial Action Plan is being prepared which could require long-term periodic groundwater purging.[10]

The second case of groundwater contamination is at the Texaco fuel station site (Phase 2A/1455 Divisadero Street site), which is now vacant. A fuel leak that occurred when the fuel station was operating caused soil and groundwater contamination. The contaminated soil has been removed (see III.P. Contaminated Soils and Hazardous Waste, p. 256), and groundwater monitoring at the site concludes that the pollutants do not pose a threat to the public or to the environment. Case closure of the site, however, has not yet been granted by the San Francisco Bay Regional

Board. Kaiser expects that issues related to case closure will be resolved prior to construction of Phase 2A/1455 Divisadero Street.

In addition to these two cases, environmental borings by Kleinfelder detected the presence of tetrachloroethylene and formaldehyde beneath the Eden Property (Phase 1A/2290 Geary Boulevard Site). However, the investigation concluded that the levels of these chemicals were low enough that the Regional Board or other responsible agencies are not likely to require remediation.[11]

SPILL CONTROL PLANS TO PROTECT WATER QUALITY

Kaiser Permanente Medical Center implements an Emergency Response Plan which describes procedures to be followed in the event of a spill of known or unknown chemicals. This plan covers both interior and exterior building areas. If a spill occurs, procedures include putting on protective equipment, obtaining spill control equipment, performing the appropriate control procedure, decontaminating exposed surfaces, and disposing of the material safely.[12]

The plan includes a telephone directory that requires specific Kaiser staff members to notify certain agencies of hazardous materials spills. For example, the Emergency Response Plan requires the Chief Engineer to notify the Department of Public Works of any spill of a hazardous material that enters the sewer. In addition, depending on the type and location of spill, one or more of the following agencies could be notified: Emergency/Fire/Police (911); Port Warden; Office of Emergency Services; National Response Center; U.S. Coast Guard; California Department of Fish and Game; California Regional Water Quality Control Board, San Francisco Region; Contra Costa County Flood Control District; and the San Francisco Department of Public Works.[13] If Kaiser reports a spill to the Regional Board, the Regional Board screens the case and its Spills, Leaks, Investigation, and Cleanup Program (SLIC) determines the level of investigation, remediation, and cleanup required.[14] Sites that are managed within the SLIC program include sites with pollution from recent or historical surface

spills, subsurface releases (e.g., pipelines, sumps, etc), complaint investigations, and all other unauthorized discharges that pollute or threaten to pollute surface or groundwater.

NOTES - Hydrology and Water Quality

1. City and County of San Francisco, Ordinance No. 19-92, San Francisco Municipal Code (Public Works), Part II, Chapter X, Article 4.1 (amended), January 13, 1992.

2. The French Campus discharges wastewater under a Class II permit. A Class II permit is issued to a minor discharger, which is any discharger that does not meet the definition of a Significant Industrial User, as defined in the San Francisco Municipal Code, Public Works Code, Article 4.1, Industrial Waste Ordinance, Ordinance No. 19-92, approved January 23, 1992.

3. City and County of San Francisco, Department of Public Works, Bureau of Environmental Regulation and Management, Permit No. 94-0256, Industrial Wastewater Discharger -- Class I Permit, Kaiser Foundation Hospital, Geary Campus, effective September 8, 1994. Expires September 7, 1997.

4. Steven Todd, Civil Engineer/Inspector for Kaiser, Bureau of Environmental Regulation and Management, Department of Public Works, City and County of San Francisco, telephone conversation, November 16, 1995.

5. Exceptions to this policy are if:

   - The total dissolved solids (i.e. salinity) exceed 3,000 milligrams per liter (mg/l), or 5,000 Us/cm, electrical conductivity, and it is not reasonably expected by the Regional Board that the groundwater could supply a public water system;
   - There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or
   - The aquifer is regulated as a geothermal energy-producing source or has been exempted administratively pursuant to 40 CFR Section 146.4 for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy, provided that these fluids do not constitute a hazardous waste under 40 CFR Section 261.3.

6. California Regional Water Quality Control Board, San Francisco Bay Region, *Water Quality Control Plan, San Francisco Bay Basin, Region 2*, June 21, 1995, p. 4-53.

7. a) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Eden Property, San Francisco, California*, August 30, 1995, p. 5. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

b) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Kaiser-Geary Campus, San Francisco, California*, August 30, 1995, p. 6. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

c) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, 2139 O'Farrell Street Site, San Francisco, California*, August 30, 1995, pp. 4-5. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

8. Kleinfelder, Inc., *Geotechnical Investigation Report, Proposed Kaiser Expansion Eden Property (Phase 1A), San Francisco, California*, November 28, 1995, p. 13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

9. a) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Kaiser-Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

b) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

c) Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, 2139 O'Farrell Street Site, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

10. Mark Zemelman, Senior Counsel, Kaiser Permanente Medical Center, San Francisco, telephone conversation, March 28, 1996.

11. Kleinfelder, Inc., *Environmental Boring Investigation Report, Eden Property, Kaiser Development Pro ect, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

12. Kaiser Permanente Medical Center, *Emergency Response Plan*, October 6, 1994.

13. Kaiser Permanente Medical Center, *Emergency Response Plan*, October 6, 1994, p. 7.

14. California Regional Water Quality Control Board, San Francisco Bay Region, *Water Quality Control Plan, San Francisco Bay Basin, Region 2*, June 21, 1995, pp. 4-60- 4-61.

P. CONTAMINATED SOILS AND HAZARDOUS WASTE

This section specifically addresses public health and environmental issues related to existing soil contamination at the project site. It also discusses environmental hazards associated with possible building contamination or hazardous materials present in the older structures on the project site. Soil contamination and other hazards at construction sites typically are detected by searching public records and inspecting the sites for signs of environmental impairment. This type of investigation is called a Phase I environmental assessment, site investigation, or site audit, and typically is performed by an independent California Registered Environmental Assessor, Registered Geologist or registered engineer. When evidence of site contamination is found, additional data (Phase II) can be gathered by actual sampling and testing the soil and/or groundwater for the suspected contaminant. Kleinfelder conducted both Phase I and Phase II levels of investigation at the Kaiser Geary Campus in August 1995. The details of the investigations are presented in this section.

Issues related to existing and proposed hazardous materials use as part of Kaiser's operations are addressed in III.J. and IV.J., Hazardous Materials, pp. 197 -211 and 410 - 423, respectively.

DEFINITIONS

Regulatory definitions of "hazardous material" and "hazardous waste" are presented in Section III.J, Hazardous Material. Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed of as hazardous waste when excavated. The *California Code of Regulations,* Title 22, Sections 66261.20-66261.33 contains technical descriptions of characteristics capable of rendering a soil hazardous.

REGULATORY BACKGROUND

Hazardous Waste Handling

Contaminated soils and other hazardous materials removed from a site during construction or remediation may need to be handled as hazardous waste. The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste, as discussed in III.J., Hazardous Materials, pp. 199 - 200.

Hazardous Material Transportation

The U.S. Department of Transportation (DOT) has the regulatory responsibility for the safe transportation of hazardous materials between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation, as discussed in III.J., Hazardous Materials, pp. 200 - 201.

Hazardous Building Materials

Asbestos

Federal and state laws and regulations govern handling of building materials that contain asbestos. Asbestos-containing material is regulated both as a hazardous air pollutant under the Clean Air Act (the primary pathway of exposure is inhalation) and as potential worker safety hazard under the authority of the California Division of Occupational Safety and Health (Cal-OSHA). These regulations limit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that

must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos. The agencies with primary responsibility for asbestos safety are the Bay Area Air Quality Management District (BAAQMD), Cal-OSHA, and the U.S. Environmental Protection Agency (USEPA). Some state regulations on asbestos-containing materials are more stringent than federal regulations. For example, California requires licensing of contractors who conduct abatement activities.

Polychlorinated Biphenyls

Regulation of polychlorinated biphenyls (PCBs) falls primarily under federal jurisdiction. The Code of Federal Regulations, Title 40, contains the Toxic Substances Control Act regulations for handling materials containing PCBs. This Act restricts the use and storage of PCB-containing transformers (defined as those containing at least 500 parts per million PCBs). The USEPA also requires that all PCB-containing transformers be registered with local fire protection personnel, whether in use or in storage, and that they be inspected every three months. If a leak is found, it must be contained to prevent release and exposure, and then be eliminated. Manufacture of PCBs in the U.S. was discontinued in 1976.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. Cal-OSHA and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace. Cal-OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices in California. At sites known to be contaminated, a Site Safety Plan must be prepared to protect workers and the public from exposure to potential hazards at the contaminated site.

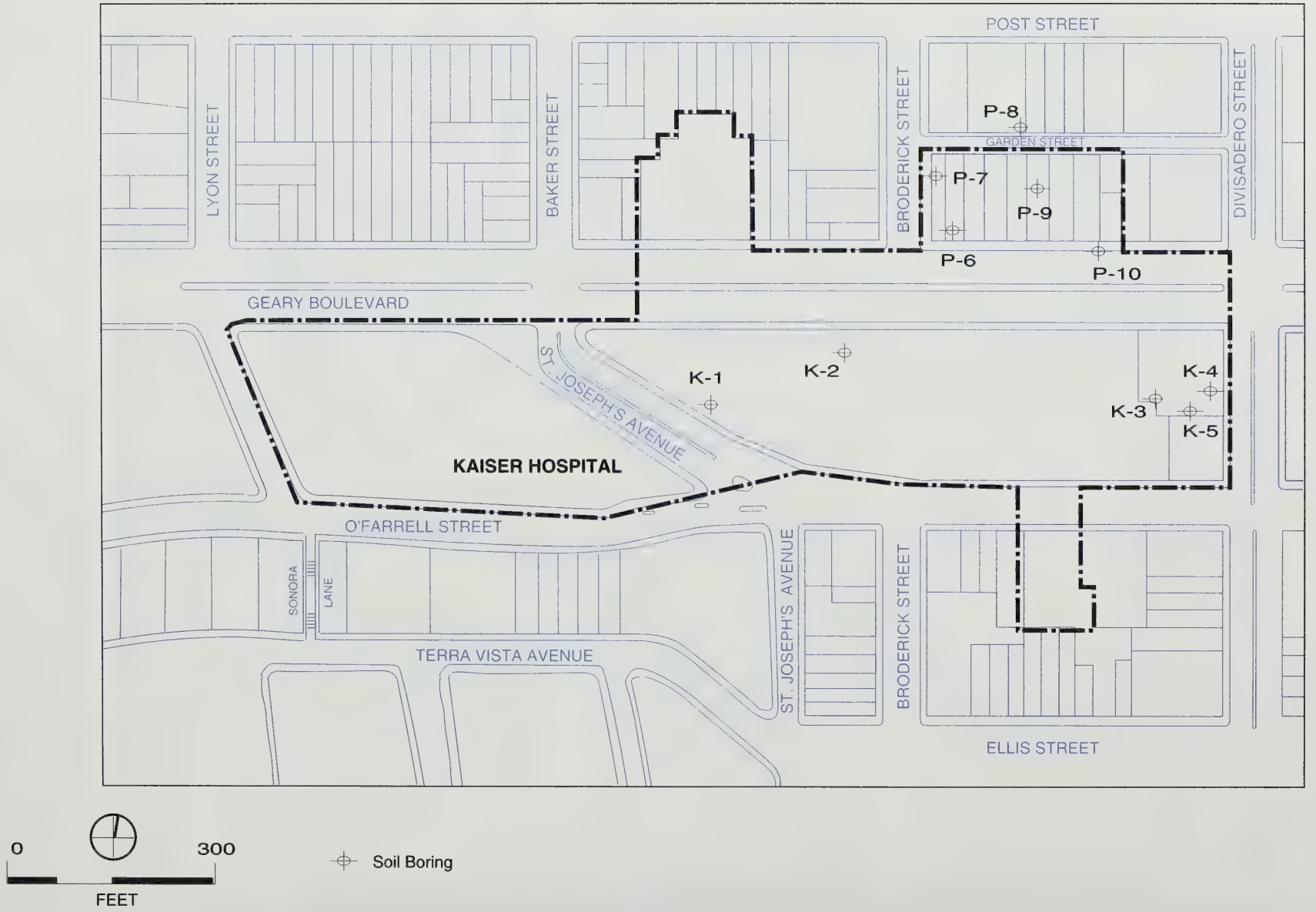
BACKGROUND AND CURRENT SITE CONDITIONS

Contaminated Soils

Kaiser retained Kleinfelder to conduct a Phase I and Phase II environmental site assessments for the development sites at the Kaiser Geary Campus. During the Phase I Preliminary Environmental Site Assessment, Kleinfelder obtained historical information for the sites and adjacent areas from interviews, previous studies in the area, Polk Directories, Sanborn Fire Insurance Maps, aerial photographs, the San Francisco Fire Department files, and the San Francisco Bureau of Building Inspection and City Planning Department files.[1] Kleinfelder also conducted a reconnaissance visit of the sites and a drive-by survey of adjacent properties.

The Phase II Environmental Assessment involved site investigation with the implementation of a drilling and sampling program for the Geary Campus. The purpose of the drilling and the sampling program was to obtain data for characterizing the conditions of the soil and groundwater and to identify the presence of contaminated or hazardous materials. The investigation included collecting soil and groundwater samples, which were analyzed for compounds that were suspected to have been on-site or that had the potential for migration onto the site from off-site sources. The potential contaminant sources for the Geary Campus site include a former Texaco service station (Phase 2A site) and a former laundry facility located on the site of the existing 2130 O'Farrell Street garage, both being on-site sources. Potential off-site contaminant sources for the site include one former laundry facility, a former lumber yard and service station, and an existing mortuary. The potential for naturally occurring asbestos in the soil at the site was investigated based on asbestos-containing material encountered during construction of the North Wing of the Kaiser Hospital during 1989.[2] The potential for lead in the soil was investigated based on historic deposits of lead-containing material in fill throughout the City of San Francisco.[3]

A total of ten soil borings, K-1 through K-5 and P-6 through P-10 as shown on Figure III.P.1, were installed and logged during the site investigation. Soil samples were collected for logging at



SOURCE: Kleinfelder, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure III.P.1
Soil Borings at Geary Campus

5-ft. depth intervals with selective samples retained for analysis. The test borings ranged in depth from 15 ft. to 80 ft. below ground surface. Summaries of the depth intervals from which the soil samples for quantitative chemical analysis were collected, as well as the results of the analyses performed on the selected soil samples are presented in Tables IX.M.1, p. A.126, and IX.M.2, p. A.127, of Appendix M. Contaminated Soils and Hazardous Waste.

The Eden Property (Phase 1A Site)

Site History

The record search performed by Kleinfelder during their Phase I site assessment indicated that there was no use and/or storage of significant amounts of hazardous materials at the site other than paints and cleaners associated with normal residential and commercial activities.[4] There were no indications of any past or current use of above-ground or underground storage tanks. The site has mostly been occupied by various buildings used for residential and commercial purposes. The commercial uses of the site do not indicate commercial use of any hazardous materials other than common cleaning compounds.

Site Investigation

Kleinfelder, during their site visit, noted an elevator with a hydraulic ram near the center of the building at 2266 Geary Boulevard which indicates the use of hydraulic fluid. Kaiser is currently using the buildings at 2260 Geary Boulevard and at 2280 Geary Boulevard as medical offices and clinics. Small amounts of hazardous materials, including lead paint, asbestos and bio-hazardous wastes, are present on these sites, and are discussed in III.J. Hazardous Materials.

Kleinfelder installed and logged five soil borings, P-6 through P-10, during the Phase II environmental assessment (see Figure III.P.1, p. 250). The results of the analyses performed on the selected soil samples, as presented in Table IX.M.1., p. A.126, indicate that with the

exception of total lead, none of the chemicals analyzed, including total petroleum hydrocarbons (TPH), volatile organic carbons (VOCs) or asbestos, were detected above the laboratory method reporting limits. One soil sample from each boring indicated the presence of lead in the soil at concentrations ranging from 1.9 mg/kg to 2.5 mg/kg. The lead concentrations are below present regulatory levels and are similar to those that naturally occur in soil.[5]

2139 O'Farrell Street (Phase 1B Site)

Site History

The records search performed by Kleinfelder on this site indicted that there is no use or storage of hazardous materials. There were no indications of any past or current above-ground or underground storage tanks at the site. The buildings at the site have been used in the past by a painter, as residences, as a laboratory, and currently as medical offices.

Site Investigation

No soil borings were made at this site as construction of an over-garage residential structure at the site would require minimal excavation.

2190 and 2200 O'Farrell Street (Phase 1C Site)

Site History

The site includes structures at 2190 and 2200 O'Farrell Street. The project site was occupied by residential buildings and garages until the parking garage was constructed at 2190 O'Farrell Street, and a large building, with the same configuration as the medical offices and clinics currently in use, was built at 2200 O'Farrell Street. The parcel at 2200 O'Farrell Street had

been also occupied in the past by a wood and coal storage building, a hay and grain storage building, a lumber shed, a lime storage building, a building for storage of finished wood products, and several workshops.

Site Investigation

Kleinfelder installed and logged one soil boring, K-2, as shown on Figure III.P.1, p. 250, outside the northwestern boundary of the project site during the Phase II environmental assessment. Based upon the results of the analyses (see Table IX.M.2, p. A.127, of Appendix M), the soil at the site appears non-hazardous. The hazardous chemicals tested for in the soil samples were below laboratory detection limits. No asbestos fibers were detected in the soil sample. One soil sample indicated the presence of lead in the soil at 1.8 mg/kg; this is below the present regulatory level of 1,000 mg/kg TTLC and at level similar to naturally occurring concentrations in soil.[6]

1401-17 Divisadero Street (Phase 2A Site)

Site History

The building at 1401 - 17 Divisadero Street is currently used as apartments. The parcel has been used for residential and commercial purposes in the past. Past commercial uses included several stores, a restaurant, and a furniture repair business. There is no indication from review of historical records, of above-ground or underground storage tanks, use or storage of hazardous materials, or incidents involving hazardous materials at the site. However, there are physical indications that an underground storage tank may be associated with the property.

Site Investigation

Three soil borings, K-3 through K-5 as shown on Figure III.P.1, p. 250, were installed and logged at this site during the Phase II environmental assessment. Based upon the results of the

analyses (see Table IX.M.2, p. A.127 of Appendix M), the soil at the site appears non-hazardous. Most of the hazardous chemicals, including tetrachloroethene (PCE), xylene, trichloroethene (TCE), and TPH, detected in the soil were below regulatory levels. The highest PCE level at 0.63 milligrams per kilograms (mg/kg) and total xylenes at 0.0031 mg/kg were below the USEPA Region IX Preliminary Remediation Goals for residential and industrial areas. The USEPA Region IX Preliminary Remediation Goals for PCE is 5.6 mg/kg for residential areas and 18 mg/kg for industrial areas. The goal for xylene is 980 mg/kg for both residential and industrial areas. Highest TCE at 0.012 mg/kg is below the Total Threshold Limit Concentrations (TTLCs). The TTLC for TCE is 2,040 mg/kg according to Title 26 California Code of Regulations Section 22-66261.24 (a)(2)(B). The concentrations of TPH were limited to 13 mg/kg. No regulatory threshold limits currently exist for TPH in soil. A limit of 1,000 mg/kg recommended by DTSC refers to TPH as gasoline.

No asbestos fibers were detected in the soil samples. One soil sample from each boring indicated the presence of lead in the soil at concentrations ranging from 1.4 mg/kg to 4 mg/kg. The lead concentrations are below present regulatory level of 1,000 mg/kg TTLC and at levels similar to those that naturally occur in soil.[7]

350 St. Joseph's Avenue (Phase 2B Site)

Site History

The parcel at 350 St. Joseph's Avenue was part of the old Calvary Cemetery, prior to construction of the existing building (see III.D. Cultural Resources, p. 154). This building, which is currently being used by Kaiser, was formerly occupied by an auto sales and service facility, a spray paint booth, showroom, and parts department. An underground storage tank was removed by Kaiser.[8] Hazardous materials, as discussed in III.J., are used and stored at the buildings at 2200 O'Farrell Street and 350 St. Joseph's Avenue.

Site Investigation

Kleinfelder installed and logged one soil boring, K-1, as shown on Figure III.P.1, p. 250, at the southern boundary of the project site during the Phase II environmental assessment. Based upon the results of the analyses (see Table IX.M.2, p. A.127 of Appendix M), the soil at the site appears non-hazardous. Except for certain laboratory contaminants, methylene chloride and acetone, the hazardous chemicals tested for in the soil samples were below laboratory detection limits.[9,10] No asbestos fibers were detected in the soil sample. One soil sample indicated the presence of lead in the soil at 1.6 mg/kg which is below the present regulatory level of 1,000 mg/kg TTLC and at level similar to naturally occurring concentrations in soil.[11]

Soil boring K-2, was installed and logged at the northeastern boundary of this site. No hazardous contaminants were detected in the samples. One soil sample indicated the presence of lead in the soil at 1.8 mg/kg which is below the present regulatory level.

Due to its proximity to the hospital building, the potential for encountering naturally occurring asbestos during excavation at this site was of concern. Asbestos-containing materials were encountered during construction of the North Wing of the Hospital. Woodward Clyde Consultants performed an evaluation of asbestos in soil and rock for the south shear wall excavation of the Kaiser Hospital along O'Farrell Street in February 1995.[12] Based upon evaluation of the laboratory results of asbestos concentrations in soil and rock samples from the planned excavation area, Woodward Clyde Consultants concluded that the bulk average asbestos content of the total excavated material will be less than 1 percent; therefore, the excavated material will not be classified as hazardous.[13]

Potential On-site Contaminant Sources

Former Texaco Station Property (Phase 2A Site)

The former Texaco Station property at Divisadero Street and Geary Boulevard was occupied by residential and commercial buildings until a gasoline service station was built on the parcel.

Earlier commercial uses included retail stores, a printing company, a painting store, a hardware and plumbing store, a cleaning store and a restaurant. A building used for mixing chemicals was located near the southwest corner of the parcel.

This property is known to have one 10,000-gallon underground storage tank (UST) for diesel, two 10,000-gallon USTs for gasoline, a 6,000-gallon UST for gasoline, and a 550-gallon waste oil tank. The site has been listed with RWQCB for a fuel leak incident. Five USTs were removed from this site in 1989 during closure of the station. Petroleum hydrocarbons have impacted the groundwater beneath this former service station. The soil and groundwater contamination has been removed, and groundwater is being monitored. For details on groundwater quality see III.O. Hydrology and Water Quality, p. 242. This incident has not been granted a final case closure by the San Francisco Regional Water Quality Control Board (RWQCB); however, Kaiser expects that issues related to case closure will be resolved prior to construction of Phase 2A/1455 Divisadero Street. The parcel is vacant.

2130 O'Farrell Street (Parking Garage)

The 2130 O'Farrell Street site was previously developed with several residential buildings and a commercial building which had been occupied by the Young and Swain Baking Company, two repair shops, Sanitary Laundry Company at the southern part of the building, and a mattress renovating facility at the northern part. In addition, a boiler room existed in the southwest corner of the building. Electric lights and irons were used in the building with oil being the source of fuel. The northern portion of the parcel was paved according to aerial photographs from 1969 through 1989 and used as a parking lot. A large building on the southern portion of this parcel was demolished in 1989; the parcel is currently occupied by a parking garage with a medical office on the first floor. Various hazardous materials are stored on this site in the southeast corner of the building, which is used as Kaiser's distribution center (see III.J. Hazardous Materials, pp. 204 - 206).

2130 O'Farrell Street is listed with the RWQCB) as a solvent leak incident. Two USTs, including one 5,000-gallon oil tank and one 550-gallon gasoline tank, three above-ground hydraulic fluid storage tanks of 55-gallon capacity each, and two cisterns were removed from this parcel. A subsurface investigation performed at this property revealed the presence of significant quantities of tetrachloroethylene (up to 6,600 parts per billion) in groundwater samples. An interim groundwater remediation system is currently in operation at this property to capture identified volatile organic compounds associated with the former Sanitary Laundry facility once located at this address.[14] Please see III.O. Hydrology and Water Quality, pp. 242 - 243 for further discussion of groundwater contamination.

Structural Contamination

As part of the Phase I Preliminary Environmental Site Assessment for Kaiser project sites, Kleinfelder collected and analyzed samples of building materials suspected of containing asbestos. The site assessment involved a limited asbestos survey including a review of the previous asbestos survey reports, a visual survey of accessible areas to note suspected asbestos containing materials, and limited bulk sampling. Destructive sampling such as demolishing walls or pulling up carpeting was not done.

Building materials that contain greater than 1 percent asbestos are regulated by the BAAQMD and the DTSC. The BAAQMD enforces the USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) rule with respect to releases of asbestos to the environment. The DTSC is concerned with the transportation and disposal of ACBM waste. Cal-OSHA regulates ACBMs with an analytical result greater that 0.1 percent asbestos by weight when worker health and safety is an issue.

Kleinfelder also collected and analyzed paint samples from buildings suspected of containing lead. The limited lead-based paint survey included a review of previous lead-based paint survey reports, a visual survey of accessible areas to note suspected lead-based paint, and limited bulk

(paint chip) sampling. Destructive sampling, such as demolishing walls or collecting paint chip samples from surfaces in occupied areas, was not done.

In addition, Kleinfelder's report on site reconnaissance indicate the potential for polychlorinated biphenyls (PCBs) in the light fixtures in the buildings at the Geary Campus.

The Eden Property (Phase 1A Site)

Asbestos

The asbestos survey for the buildings at this site included a visual survey of accessible areas and limited bulk sampling. All the buildings at this site were surveyed except those premises which Kleinfelder did not have access, which included the following addresses: 2234, 2262-2264, 2288 and 2292 Geary Boulevard and 13 Garden Street. A total of 187 samples were analyzed for the various structures. Thirty-five samples contained asbestos with concentrations ranging between <1 percent to 90 percent. Results of the bulk sampling, including the sample location, building material sampled, the condition, analytical result, and the friability of the material for the samples containing detectable amounts of asbestos, are presented in Table IX.M.3, pp. A.128 - A.129 of Appendix M. According to the USEPA a "friable material" can be reduced to dust or powder with slight pressure such as hand pressure and released into the air. A "non-friable material" contains fibers which have been locked in by a bonding agent, coating, binder, or other material so that fibers are not released during appropriate use or handling.

Asbestos-containing building materials in good condition have no visible damage or deterioration and present no health hazard if maintained in such a condition and left undisturbed. An asbestos-containing building material in fair condition exhibits minor damage (<10 percent area or 25 percent localized) and has the potential for releasing asbestos fibers if disturbed. An asbestos-containing building material in poor condition exhibits significance damage (>10 percent area or 25 percent localized) and has the potential of releasing fibers during use. Two of

the 35 samples were in poor condition and the remaining were in good condition. Thirteen samples were found to be of friable material.

Lead

The lead-based paint survey for this site included a visual survey of accessible areas to note suspected lead-based paint and limited bulk (paint chip) sampling. The Consumer Product Safety Commission (CPSC) defines a lead-based paint as 0.06 weight percent lead. The CPSC definition was established as the maximum lead content allowable for paints used for residential buildings since the early 1980s. For the purposes of this EIR, the definition is assumed to represent a potential upper limit for background concentrations of lead in paint. A total of 42 paint samples was collected from various structures at the site and analyzed. Out of 42 samples, 35 indicated presence of lead ranging in concentrations from 0.0007 to 13 weight percent. Twenty samples indicate lead concentrations above the background level. The amount of affected paint is considered extensive at each location.[15] The visual assessment indicated that most of the paint was in good condition; however, there were areas where the paint was flaking and peeling.[16]

Polychlorinated Biphenyls

During their survey of the buildings on the site, Kleinfelder observed fluorescent lights. It is possible that the light fixtures feature ballasts which contain PCBs; these ballasts were not sampled during Kleinfelder's assessment, as the buildings were occupied. Numerous Pacific Bell and Pacific Gas and Electric Company (PG&E) vaults were noted in the sidewalks along the streets. These vaults are likely to contain transformers. Oil containing PCBs has been used in electrical equipment, such as transformers, in the past as an insulating fluid for heat dissipation.

2139 O'Farrell Street (Phase 1B Site)

Asbestos

The asbestos survey for this development site included a visual survey of accessible areas to note suspected asbestos containing materials and limited bulk sampling. A total of 19 samples were analyzed for the structure at this site. Ten samples contained asbestos with concentrations ranging between <1 percent and 20 percent. Results of the bulk sampling, including the sample location, building material sampled, the condition, and the friability of the material for the samples containing detectable amounts of asbestos, are presented in Table IX.M.4, p. A.130 of Appendix M. All ten samples were in good condition and three were of friable material.

Lead

The lead-based paint survey at this site included a search for a visual survey of accessible areas to note suspected lead-based paint and limited bulk (paint chip) sampling. A total of four suspected lead paint samples were collected from the structure on this site. All four samples contained detectable amounts of lead ranging from 0.021 to 0.138 weight percent. Three out of four samples indicate lead concentrations above the background level.

Polychlorinated Biphenyls

Kleinfelder observed fluorescent lights in the buildings at this site. It is possible that the light fixtures feature ballasts which contain PCBs, as discussed above.

2190 and 2200 O'Farrell Street (Phase 1C Site)

Asbestos

The results of Kleinfelder's asbestos survey of this site did not include bulk sampling. For various structures at the site, suspected asbestos containing materials were noted during visual survey. Sheet vinyl flooring and roofing materials at 2190 O'Farrell Street building were suspected of containing asbestos materials. Sheet vinyl flooring, floor tile and drywall with joint compound at 2200 O'Farrell Street were suspected of containing asbestos materials. In addition, asbestos-containing building materials were not noted at the 2200 O'Farrell Street building but were suspected to be present based on general building construction.

The results of previous asbestos survey reports for 2190 O'Farrell Street indicate that most of the asbestos-containing materials were abated except at the elevator and elevator mechanical rooms. The results of the previous survey for 2200 O'Farrell Street indicate significant amounts of asbestos-containing building material including floor tile, mastic, linoleum, and spray-on acoustic material.

Lead

For structures on this site, Kleinfelder conducted a visual survey of accessible areas to note suspected lead-based paint and a review of previous lead-based paint survey reports. Kleinfelder noted suspected lead-based paint in residual traffic paint at 2190 O'Farrell Street and in painted surfaces in the buildings at 2200 O'Farrell Street. Results of previous survey reports indicated that majority of lead-based traffic paint had been removed from 2190 O'Farrell Street.

Polychlorinated Biphenyls

Kleinfelder observed fluorescent lights in the buildings at this site. It is possible that the light fixtures feature ballasts contain PCBs, as discussed above.

1401-17 Divisadero (Phase 2A Site)

Asbestos

The results of Kleinfelder's asbestos survey of this site did not include bulk sampling. Suspected asbestos-containing materials were noted during the visual survey. Ceiling texturing, wall/ceiling plaster, floor tile, linoleum, sheetrock, water tank and piping insulation, furnace/boiler insulation, and roofing felt were noted as suspected asbestos-containing building material. Results of previous surveys at the site, conducted by other consultants, indicated that five occurrences of asbestos-containing building material were noted out of 72 samples collected at the site. The asbestos-containing building material were noted in the ceiling structures at 1405 and 1417 Divisadero, in the floor tile and hot water insulation at 1405 Divisadero, and in the boiler and furnace insulation at 1411 Divisadero.

Lead

Kleinfelder conducted a visual survey of accessible areas to note suspected lead-based paint and a review of previous lead-based paint survey reports. Kleinfelder noted suspected lead-based paint in painted surfaces of the buildings. Results of previous surveys by other consultants indicated that all six suspected lead-based paint samples collected and analyzed indicated presence of lead; the maximum level was reported at 6,072 milligrams per kilograms (mg/kg) which is above the Total Threshold Limit Concentration of 1,000 mg/kg.

Polychlorinated Biphenyls

A PCB survey of the structures at this site was conducted by Enviro Group.[17] Visual inspection of the light fixtures was performed to verify the presence of PCB-containing light ballasts. This inspection indicated that the ballasts in the building were labeled as non-PCB containing and

were, therefore, assumed to not contain PCBs. Twenty-eight light fixtures were noted in the store spaces within the building with unlabeled ballasts; these fixtures may contain PCBs.

350 St. Joseph's Avenue (Phase 2B Site)

Asbestos

Kleinfelder collected bulk samples from the building at this site. Out of 87 samples analyzed, six samples contained detectable amounts of asbestos. Table IX.M.5, p. A.131 of Appendix M., presents the results of the analyses, including the sample location, building material sampled, condition of the material, and the friability, of the samples containing detectable amounts of asbestos. Out of six samples, five were in good condition and of non-friable material and one in fair condition and of friable material. The percent chrysotile asbestos ranged between 1 percent and 20 percent.

Lead

Bulk (paint chip) samples were collected from the building at this site. A total of four samples were collected from this structure. All four samples contained detectable amounts of lead ranging from 0.005 percent to 0.068 percent by weight. Only one sample indicated lead concentrations above the background level.

Polychlorinated Biphenyls

Kleinfelder observed fluorescent lights in the building at this site. It is possible that the light fixtures feature ballasts which contain PCBs, as discussed above.

NOTES - Contaminated Soils and Hazardous Waste

1. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

2. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

3. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

4. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

5. Kleinfelder, Inc., *Environmental Boring Investigation Report, Eden Property, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

6. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

7. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

8. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

9. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

10. Methylene chloride and acetone were detected above the laboratory method reporting limit in six out of eight samples collected from boring K-1. These chemicals were most likely introduced by the testing laboratory and do not represent actual contamination.

11. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

12. Woodward Clyde Consultants, *Evaluation of Asbestos in Soil and Rock, Planned South Shear Wall Excavation, Kaiser Medical Center Seismic Upgrade, San Francisco, California*, February 9, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

13. Woodward Clyde Consultants, *Evaluation of Asbestos in Soil and Rock, Planned South Shear Wall Excavation, Kaiser Medical Center Seismic Upgrade, San Francisco, California*, Oakland, California. February 9, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

14. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

15. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

16. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Eden Property, San Francisco, California*, Pleasanton, California, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

17. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

IV. ENVIRONMENTAL IMPACTS

A. LAND USE AND ZONING

LAND USE

The Kaiser Geary Campus project consists of two development phases on sites located on the Geary Campus. The areas of the campus that would undergo changes or intensification in land uses are the block east of the Kaiser Hospital, bounded by Geary Boulevard, Divisadero Street, O'Farrell Street and St. Joseph's Avenue; the Eden Property on the north side of Geary Boulevard between Divisadero Street and Broderick Street; and 2139 O'Farrell Street. The 2350 Geary Boulevard building on the north side of Geary Boulevard between Broderick and Baker Streets would be vacated by Kaiser.

The project would involve demolition of four existing Kaiser facilities, all the structures on the Eden Property and a 21-unit apartment building. The project would construct three outpatient services buildings and one administrative services building, each with an underground parking garage, and a 21-unit replacement apartment building.

Year 2000

Phase 1 of the project would result in the consolidation of existing Kaiser Medical Center services, now located throughout the area and at the French Campus, at a central location on the Geary Campus.

Phase 1A/2290 Geary Boulevard/Assessor's Block 1079

Phase 1A/2290 Geary Boulevard, on Block 1079, involves ten parcels fronting Geary. Phase 1A/2290 Geary Boulevard includes demolition of eleven two- and three-story structures at: 11-19 Garden Street; 25 Garden Street; 2232-38, 2240, 2242, 2250, 2256, 2262-66, 2270-74, 2280-82 and 2292-96 Geary Boulevard. The buildings to be demolished include two structures with about 14,500 sq. ft. of space, currently occupied by Kaiser outpatient services, and eight structures containing about 8,900 sq. ft. of commercial/retail space, 18,900 sq. ft. of office space, and eight occupied residential units. Following demolition, Kaiser would construct an eight-story, 105-ft.-high, 260,000-sq.-ft. outpatient services building with a 532-space underground, seven-level parking garage on the 34,340-sq.-ft. consolidated lot. The building would cover about 95 percent of the lot area, including covered setbacks and arcades above the ground level.[1]

The majority of buildings on the Eden Property originally were constructed as single-family and multi-family residential structures. Over time the use of these properties has changed, shifting from residential to mixed-use (commercial/residential). This shift is typical of the growth in commercial uses along Geary Boulevard, with residential areas located to the north and south of this main thoroughfare.

The changes that would occur on the Phase 1A/2290 Geary Boulevard site north of Geary Boulevard represent a change in land use, intensity and scale. This site is located in a nine-block area that is experiencing a change in land uses from a mix of small-scale commercial and residential use to larger-scale medical and related uses south of and at UCSF/Mount Zion. The new Phase 1A medical outpatient services facility would further the ongoing intensification of medical uses in the immediate vicinity of the Kaiser Geary Campus.

Phase 1B/2139 O'Farrell Street/Assessor's Block 1101

Phase 1B/2139 O'Farrell Street has three components. The first component is the demolition of the existing three-story, 5,400-sq.-ft. 2139 O'Farrell Street building (Block 1101, Lot 22), currently used by Kaiser for outpatient services and administration. This building fronts on O'Farrell Street. To the west, south and east of this site are residential developments. This side of the street is primarily residential in character.

The second component is the construction of a four-story, 40-ft.-high 21-unit residential building with off-street parking on the site. Demolition of the existing medical building and the construction of the new 21-unit residential building at this location would be compatible with the predominant residential uses on the south side of O'Farrell Street.

Upon completion of the units, the third component of this phase would be the demolition of the existing 17,500-sq.-ft. building at 1401-17 Divisadero which includes 21 residential units and about 6,000 sq. ft. of commercial/retail space. Upon completion of this phase, the land uses to the south of O'Farrell Street (with the exception of the southwest corner of O'Farrell and Divisadero and the adjacent parking lot) would be all residential with no institutional or commercial uses.

Phase 1C/2295 Geary Boulevard/Assessor's Block 1098

Phase 1C/2295 Geary Boulevard development on Block 1098 would include demolition of the existing six-story parking garage at 2190 O'Farrell Street, the eight-story, 105,000-sq.-ft. outpatient services building at 2200 O'Farrell Street and removal of the one-story modular unit and trailers on the parking lot between the garage at 2130 O'Farrell and the building at 350 St. Joseph's Avenue. The site would be developed with an eight-story, 105-ft.-tall, 350,000-sq.-ft. outpatient services building with six levels of underground parking.

The land use changes in Phase I would result in the demolition of eight occupied residential units that would not be replaced, about 136,500 sq. ft. of medical space used by Kaiser and about 52,000 sq. ft. of other commercial/retail/office space. New construction would result in 610,000 sq. ft. of Kaiser outpatient services space and the construction of 21 new replacement housing units.

Upon completion of Phase 1, the following space currently used by Kaiser would be vacated and the uses relocated to the new Phase 1 buildings: approximately 31,400 sq. ft. at 350 St. Joseph's Avenue, approximately 32,500 sq. ft. at 1635 Divisadero Street, approximately 4,700 sq. ft. at 2580-90 Geary Boulevard and 940 Presidio, approximately 4,000 sq. ft. at 2107 O'Farrell Street, and approximately 16,000 sq. ft. at 1201 Fillmore Street. Other than 350 St. Joseph's Avenue, which would be redeveloped in Phase 2B, the vacated spaces would be available for lease, and would most likely continue to be office or medical-related uses due to the design and configuration of the buildings.

Phase 1 would result in conversion of the existing small-scale mixed-use buildings on the Eden Property (including eight residential units that would not be replaced) to more-intensive, large-scale institutional medical office and accessory parking uses. Phase 1 would also demolish and replace 21 apartment units. During construction of Phase 1, the French Campus would be used for temporary outpatient services. Upon completion of Phase 1 of the project, all facilities currently located at the French Campus would be relocated to the new Geary Campus facilities. Kaiser has indicated that they would, at that point, re-evaluate the future use of the French Campus. Vacant space on the French Campus could potentially be available for sale or lease. The use would most likely continue to be medical-related due to the design and configuration of the existing buildings.

All uses proposed in Phase 1 are allowable or allowable as a conditional use under the applicable land use designations. Phase 1 would not introduce new uses that are incompatible with existing medical-related and commercial uses in the area. Medical-related uses in the vicinity currently occupy converted small-scale residential buildings. Phase 1 would consolidate some existing medical-related uses on the north side of Geary Boulevard into a single, larger-scale building.

Kaiser medical uses are most distinctive on the south side of Geary Boulevard in larger-scale medical buildings; likewise, UCSF/Mount Zion medical uses are most distinctive on Divisadero Street north of Geary Boulevard in larger-scale medical buildings.

Year 2010

Phase 2A would add medical offices and services to the 1455 Divisadero Street site. Phase 2B would intensify medical administrative uses on a site which now has Kaiser outpatient facilities.

Phase 2A/1455 Divisadero Street

Phase 2A/1455 Divisadero Street is construction of a six-story, 80-ft.-high, 127,000-sq.-ft. outpatient services building with four levels of underground parking. This building would replace the existing three-story, 21-unit apartment building and ground-floor retail use at 1401-17 Divisadero Street. This would change mixed residential and commercial land use to medical-related use at this location. Construction of Phase 2A/1455 Divisadero Street would also result in development of the vacant site (previously a Texaco station) at the corner of Divisadero Street and Geary Boulevard.

Phase 2B/New 350 St. Joseph's Avenue

Phase 2B/New 350 St. Joseph's Avenue consists of demolition of the two-story building at 350 St. Joseph's Avenue and construction of a three-story, 50-ft.-high, 97,000-sq.-ft. administrative services building and five levels of underground parking. This would not represent a change in, but would intensify, the current medical-related land use.

Completion of Phases 1 and 2

Upon completion of Phases 1 and 2, the existing Kaiser Hospital, the 2130 O'Farrell parking garage and the 2350 Geary Boulevard outpatient services building would be the only existing buildings retained on the campus. The project would create a three-block medical facility with an acute care hospital, approximately 850,000 sq. ft. of outpatient and administrative services and parking for about 2,400 cars.

The development of the Eden Property and redevelopment and build-out of AB 1098 would result in the expansion of an institutional medical campus along Geary Boulevard. This intensification could result in the development of additional retail and medical-related uses in the vicinity. It is possible that the increase in demand for such space would result in conversion of additional residential and neighborhood-serving uses in the future.

UCSF/Mount Zion

The short-range development program for UCSF/Mount Zion north of the Geary Campus, projected to add approximately 294,400 sq. ft. of UCSF-owned space, was initiated in 1990 and is nearing completion. It includes several major new construction projects such as a new 109,000-sq.-ft. Research Building at 2340 Sutter Street; a 44,200-sq.-ft. medical office building at 2330 Post Street; and a second medical office building of 52,000 sq. ft. at 1701 Divisadero Street. Some parking also has been developed; patient valet parking on the main hospital block provides for up to 50 vehicles and the 1701 Divisadero project includes underground parking for over 150 vehicles.

The approved UCSF/Mount Zion long-range development program (1997 through 2010) calls for modernizing and expanding the main hospital block by replacing the existing two buildings that comprise the Main Hospital in two phases: a new hospital and administrative building of up to 200,000 sq. ft. and a hospital and administrative building of up to 250,000 sq. ft. In addition, several projects originally anticipated to be constructed in the UCSF/Mount Zion short-range

development program have been delayed and would be considered in the UCSF/Mount Zion long-range development program in connection with UCSF's long-term patient care management planning. See Figure III.A.1, p. 106, for the location of UCSF/Mount Zion.

The Kaiser Geary Campus project and continuing implementation of UCSF/Mount Zion Medical Center program would influence the land use patterns in the vicinity. These two large medical institutions have stimulated development of doctors' and dentists' offices, clinics and related uses such as pharmacies and optical services. This development has involved new construction and conversion from one use to another, and led to increases in intensity of use and scale of structures creating a center of medical institutions in the local area. The additional employment related to this development in the area has also stimulated the development of commercial and retail services for employees as well as the neighborhood.

LAND USE JURISDICTION AND ZONING

Year 2000

Phase 1A/2290 Geary Boulevard

Phase 1A/2290 Geary Boulevard consists of demolition of the existing development on the ten lots that comprise the Eden Property site and development of an outpatient services building and underground parking. The Phase 1A/2290 Geary Boulevard site is approximately 34,844 sq. ft. The building proposed is an eight-story, 105-ft.-high building containing approximately 260,000 sq. ft. of floor area. The floor area subject to the FAR is approximately 206,000 sq. ft. Proposed uses are support services for the ground floor and outpatient services on all other floors. Retail is an allowed use in NC-3 land use districts. Also proposed is construction of an underground 532-space garage.

The 6 to 1 FAR applicable to the development site would allow construction of about 209,000 sq. ft. The proposed development is consistent with regard to uses and height and bulk

limitations. The proposed floor area of the building attributable to the FAR would not exceed the 6 to 1 FAR.

The Phase 1A/2290 Geary Boulevard development site of the proposed project is under the sole jurisdiction of the Department of City Planning, and will require design review by the City Planning Commission, pursuant to City Planning Code Section 249.13. Demolition and site permits would also be required.

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell Street consists of demolition of the existing ancillary services building and development of a three-story residential structure and the demolition of the mixed-use building at 1401-17 Divisadero Street. The 2139 O'Farrell building site is approximately 11,900 sq. ft. Kaiser proposes to construct a four-story, 21-unit apartment complex with an at-grade parking garage. The proposed design for this site is for a mix of units (nine studios, nine one-bedroom units, and three two-bedroom units for a total of 58 rooms, as rooms are defined in the Western Addition A-2 Redevelopment Plan). The proposed use is consistent with the alternate use, medium-density residential use, designated for this site in the A-2 Plan. The proposed density would be consistent with the allowable density (11,900-sq.-ft. lot area/200 = 59.5 rooms).

If an Owner Participation Agreement (OPA) has not been executed prior to the expiration of the A-2 Plan, the development would be regulated by the City Planning Code, which allows for a maximum of 29 residential units on this site (11,900-sq.-ft. lot area/400 =29.75 units).

Under California Community Redevelopment Law Section 33413(a), if a project removes low-moderate income housing and is subject to a written agreement with a redevelopment agency, the agency must provide an equal or greater number of replacement housing units in the redevelopment area within four years. If the agency lacks the funds to carry out this requirement, the project sponsor may, as part of the OPA, agree to provide replacement housing

as part of their project. Phase 1B/2139 O'Farrell is proposed pursuant to this requirement. The project sponsor has indicated that they intend to enter into an OPA with the SFRA for Phase 2A/1455 Divisadero.

Upon completion of the construction of the replacement housing at the Phase 1B/2139 O'Farrell Street site and relocation of the tenants, the 21 apartment units at 1401-17 Divisadero Street would be demolished.

Phase 1B/2139 O'Farrell would require design review by SFRA. Kaiser has indicated that it intends to execute an OPA with SFRA pursuant to the A-1 and A-2 plans. Approval of the OPA would be considered by the SFRA Commission after public hearing or hearings. The Department of City Planning would review the building design in its advisory capacity.

Phase 1C/2295 Geary Boulevard

Phase 1C/2295 Geary, located in the A-1 Plan area, consists of demolition of the existing six-story parking garage at 2190 O'Farrell Street and the outpatient services building at 2200 O'Farrell as well as removal of the one-story modular building and trailers on the parking lot between the garage at 2130 O'Farrell and the building at 350 St. Joseph's Avenue. The site would be developed with an eight-story, 350,000-sq.-ft. outpatient services building with underground parking. The A-1 Plan permits development of outpatient service buildings on land designated for Community Shopping. The allowable FAR on this site is 3.6:1.

This phase would require design review by SFRA. Kaiser has indicated that it intends to execute an OPA with SFRA pursuant to the A-1 Plan. Approval of the OPA would be considered by the SFRA Commission after public hearing or hearings. The Department of City Planning would review the building design in its advisory capacity.

Year 2010

Phase 2A/1455 Divisadero Street

The development site for Phase 2A/1455 Divisadero Street includes the two lots with frontage on Divisadero Street between Geary Boulevard and O'Farrell Street. These include the vacant Texaco site at 2201 Geary Boulevard and the apartment building at 1401-17 Divisadero Street which would have been demolished by year 2000.

2201 Geary (Lot 38, former Texaco gas station site) is designated as Community Shopping under the A-1 Plan. Outpatient services is a permitted use for the Community Shopping designation. The allowable FAR for areas designated Community Shopping is 3.6 to 1. The site is about 16,000 sq. ft. The A-1 Plan does not establish height limits for new commercial development.

As discussed in III.A. Land Use and Zoning, p. 115, the proposed use of the 1401-17 Divisadero site would require an amendment to the Plan to re-designate the property from M-4 (Residential-Medium Density) to Community Shopping. If this amendment was approved, the allowable FAR for this site would remain at 3.6 to 1. The site area is approximately 7,000 sq. ft.

This phase would require design review by SFRA. Kaiser has indicated they intend to execute an OPA with SFRA, pursuant to the A-1 Plan. Approval of the OPA would be considered by the SFRA Commission after public hearing or hearings. The Department of City Planning would review the building design in its advisory capacity.

If development of Phase 2A/1455 Divisadero Street occurs after expiration of the Western Addition A-1 Plan in Year 2000, and if an OPA has not been executed, development would occur under the provisions of the City Planning Code. The proposed development would then require Conditional Use Authorization for lot size, use size, use and planned unit development.

Phase 2B/New 350 St. Joseph's Avenue

The 350 St. Joseph's Avenue site is located in a NC-3 district and consists of approximately 32,100 sq. ft. The development proposed for this site is demolition of the existing building and construction of a three-story administrative and ancillary services building, containing approximately 97,000 sq. ft. This use, lot size, building size and planned unit development application would require Conditional Use Authorization. The FAR for the NC-3 district is 3.6 to 1. The height and bulk district for this site is 105-E. The proposed three-story building would not exceed height and bulk limits.

NOTES - Land Use and Zoning

1. Keith Millay, Project Architect, Anshen and Allen, telephone conversation with EIP Associates, September 10, 1996.

B. URBAN DESIGN AND VISUAL QUALITY

YEAR 2000

Phase 1A/2290 Geary Boulevard (Eden Property)

Phase 1A would be the demolition of buildings at 11-19 Garden Street, 25 Garden Street and 2230-2296 Geary Boulevard, totaling about 48,000 sq. ft., and the construction of a 260,000-sq.-ft. outpatient service building. The building would be eight stories with mechanical penthouses. The Geary Boulevard facade would be stucco with a grid-pattern of windows and a recessed glass curtain wall in the center of the facade forming the main entrance to the buildings. The windows would be recessed to create shadow lines. The recessed glass curtain wall above the three-story atrium entrance lobby would divide the facade into three segments.

The glass curtain wall incorporated into the building design would not cause excessive glare or affect pedestrians or drivers along Geary Boulevard. The curtain wall would be clear, non-reflective glass (the glass on the south side of Geary Boulevard has a green tint, non-reflective) recessed from the sidewalk frontage. The building, as currently designed, would contain the same type and ratio of stucco to glass as in the existing Hospital building. These materials are also non-reflective.

The height of the Phase 1A/2290 Geary building would be 105 ft., with 15-ft. setbacks at the east and west ends of the building above 80 ft. This height is over twice the height of the existing buildings on the site and those directly north. Although the lower height of the eastern facade would reduce the building mass adjacent to the existing 50-ft.-high apartment building, it would still be substantially greater in mass and height than existing development.

This building would cover the entire site. Above the third level, it would set back five ft. from the east property line. The amount of development on the site would increase by over 400 percent. The current visual character of this site is small, neighborhood-commercial scale with varied height and lot coverage, and a variety of architectural style and age in buildings.

The size, bulk and scale of the Phase 1A/2290 Geary Boulevard building would be visible from long- and short-range views and from the Geary Boulevard corridor as far as four to five blocks east and west of the building. This building would alter the existing pedestrian scale of the Geary Boulevard streetscape in the project area. Figures IV.B.1 and IV.B.2, pp. 279 and 280, show the view of Phase 1A/2290 Geary Boulevard from Geary Boulevard.

Construction of the building would extend large-scale institutional development to the north side of Geary Boulevard between Divisadero and Broderick Streets. The existing hospital, which is six to eight stories, and the 2200 O'Farrell building would partially obstruct the view of the 2290 Geary Boulevard building from the Anza Vista areas to the southwest. Interior and exterior night lighting may be visible from these viewpoints.

Although the increased building mass would alter the views along the Geary Boulevard corridor and would add to present views of high-rise buildings, the views toward downtown San Francisco to the east would not be affected. Phase 1A/2290 Geary Boulevard would be visible from the Hamilton Recreation Center playing fields. It would not block views of the bay or downtown skyline from Hamilton Recreation Center.

Pedestrian Bridge Variant

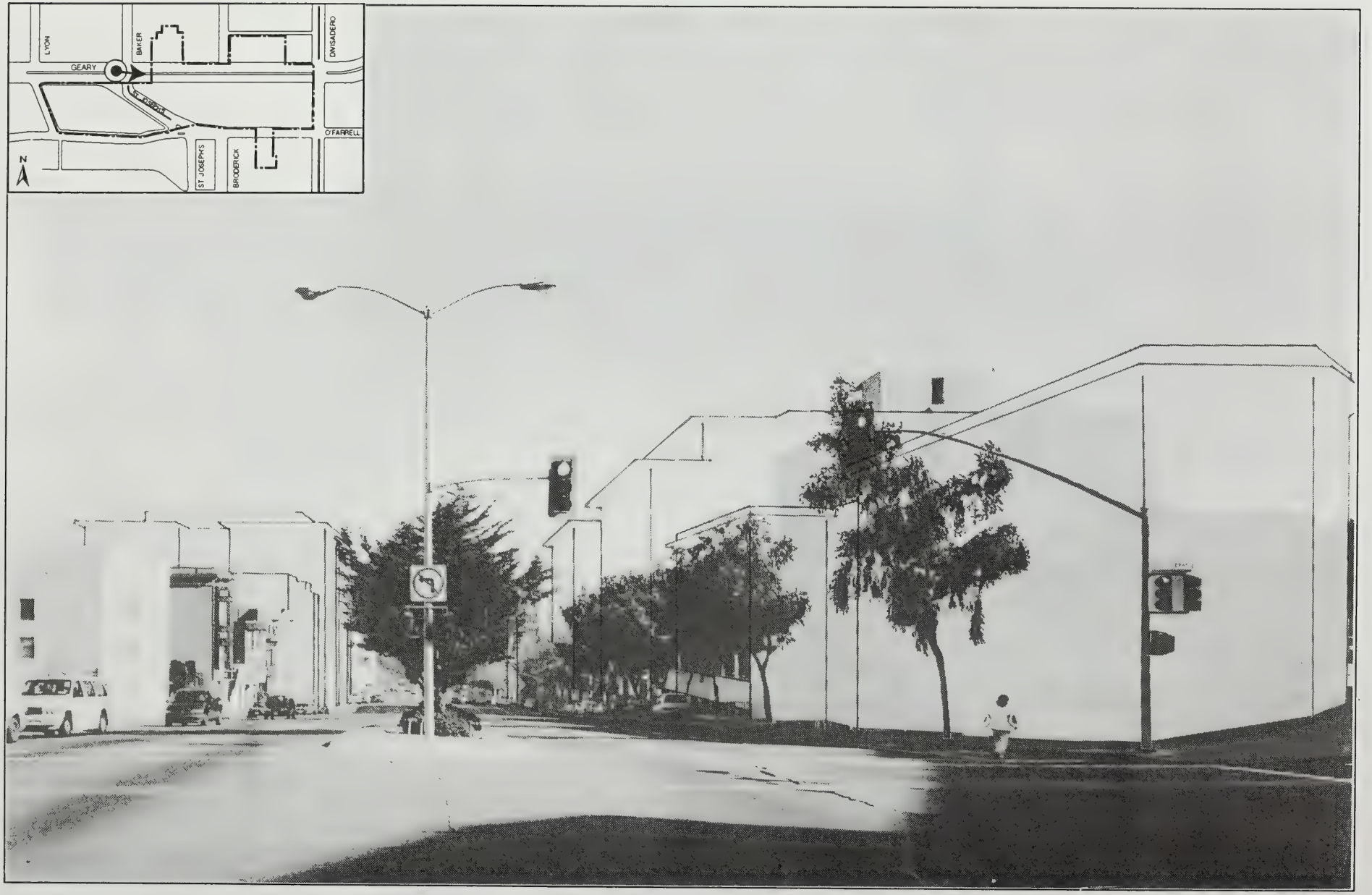
As a variant to the project, the project sponsor is considering development of a pedestrian bridge spanning Geary Boulevard between the Phase 1A/2290 Geary Boulevard (at the third floor) and the south side of Geary Boulevard (see IV.G. Transportation and Circulation, pp. 378-379).

The bridge would extend from the Phase 1A/2290 Geary building to the Geary Boulevard median and from the median to the south side of Geary Boulevard. The bridge would be visible from the Geary corridor. The view of the downtown skyline would be obstructed partially by the bridge when viewed from the west along Geary (see Figure IV.B.3, p. 281).

SOURCE: EIP Associates

Figure IV.B.1

Geary Boulevard Corridor Looking West – Phase 2A/1455 Divisadero Street Phase 1C/2295 Geary Boulevard, Phase 1A/2290 Geary Boulevard, (left to right)

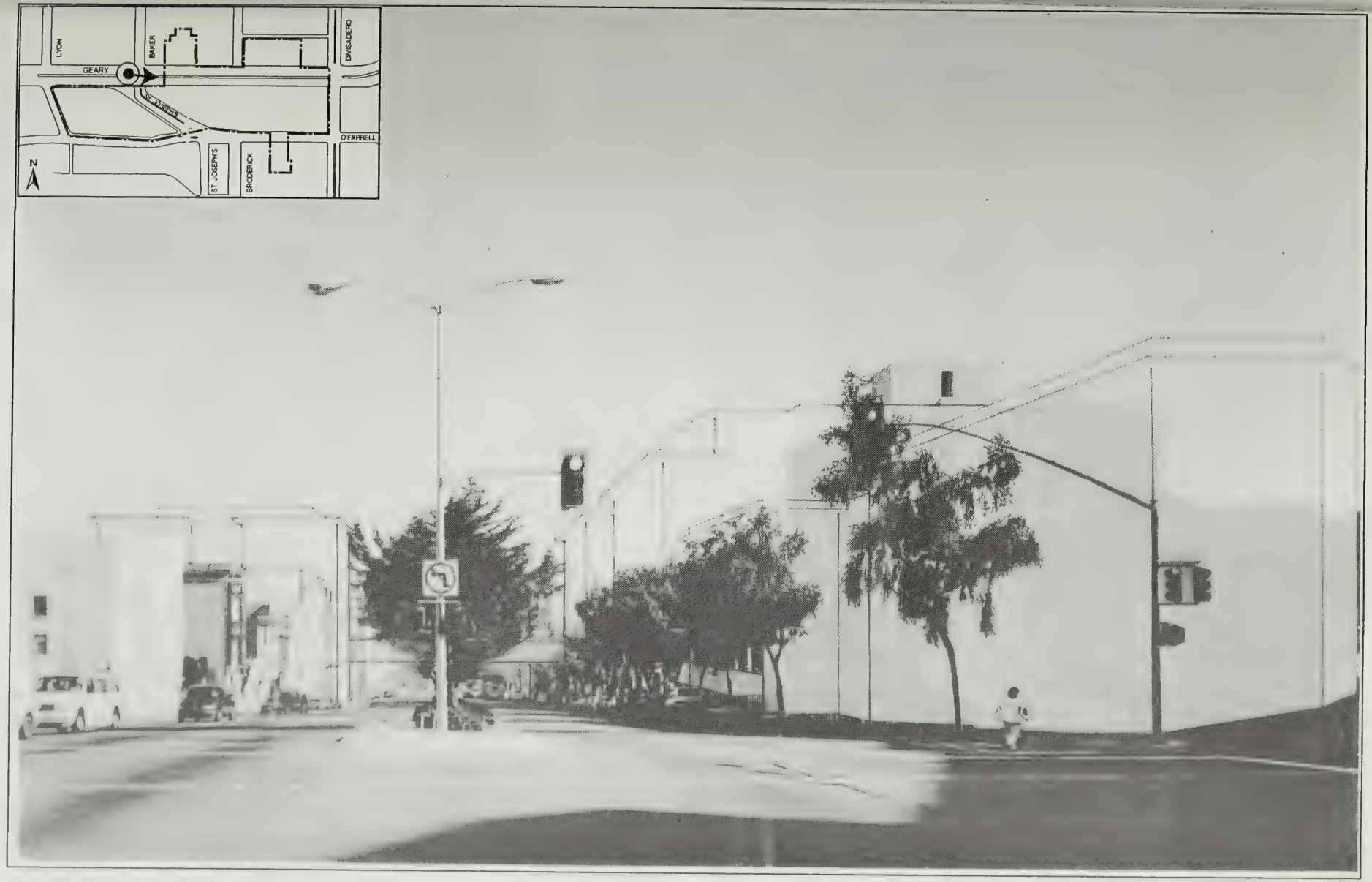


SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.2

Geary Boulevard Corridor Looking East – Phase 1A/2290 Geary Boulevard Phase 1C/2295 Geary Boulevard, Phase 2B/350 St. Joseph's Avenue, (left to right)



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.3
Geary Boulevard Corridor Looking East with Illustrative Bridge Variant
Phase 1A/2290 Geary Boulevard, Phase 1C/2295 Geary Boulevard, Phase 2B/New 350 St. Joseph's Avenue, (left to right)

The view of the bridge from the east would be limited because of the curve in Geary Boulevard near Scott Street. The bridge would be visible from the sidewalk and adjacent areas and the upper floors of the Kaiser buildings (see Figure IV.B.4).

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell would be the demolition of the existing three-story, 5,420-sq.-ft. office building, which is set back from the street behind the surface parking lot, and the construction of a four-story, 17,400-sq.-ft. apartment building. The proposed building would have parking on street level. The design of the facade of this building, with bay windows, vertical and horizontal elements, and a decorative cornice at the flat roof, would be similar to the new residential buildings in the area.

The existing surface lot and landscaping adjacent to O'Farrell Street would be removed. The new building would be more visible than the existing building, which is located towards the rear of the lot. The amount of the development on the site would be increased about 150 percent. The size, scale and materials would be similar to other multi-unit apartment buildings in the vicinity and consistent with the residential character of the south side of O'Farrell Street.

Upon completion of Phase 1B/2139 O'Farrell Street, the mixed-use building at 1401-1417 Divisadero Street would be demolished. This would result in a vacant area along the entire Divisadero Street frontage between Geary Boulevard and O'Farrell Street and would remain secured and undeveloped until construction of Phase 2A/1455 Divisadero Street, and until needed as a construction staging area during construction of Phase 1C/2295 Geary Boulevard.

Phase 1C/2295 Geary Boulevard

Phase 1C/2295 Geary Boulevard would be the demolition of the eight-story, 160,000-sq.-ft. building at 2200 O'Farrell Street and the six-story garage at 2190 O'Farrell, and the construction

SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.4

Geary Boulevard Corridor Looking West with Illustrative Bridge Variant

Phase 2A/1455 Divisadero Street, Phase 1C/2295 Geary Boulevard, Phase 1A/2290 Geary Boulevard, (left to right)

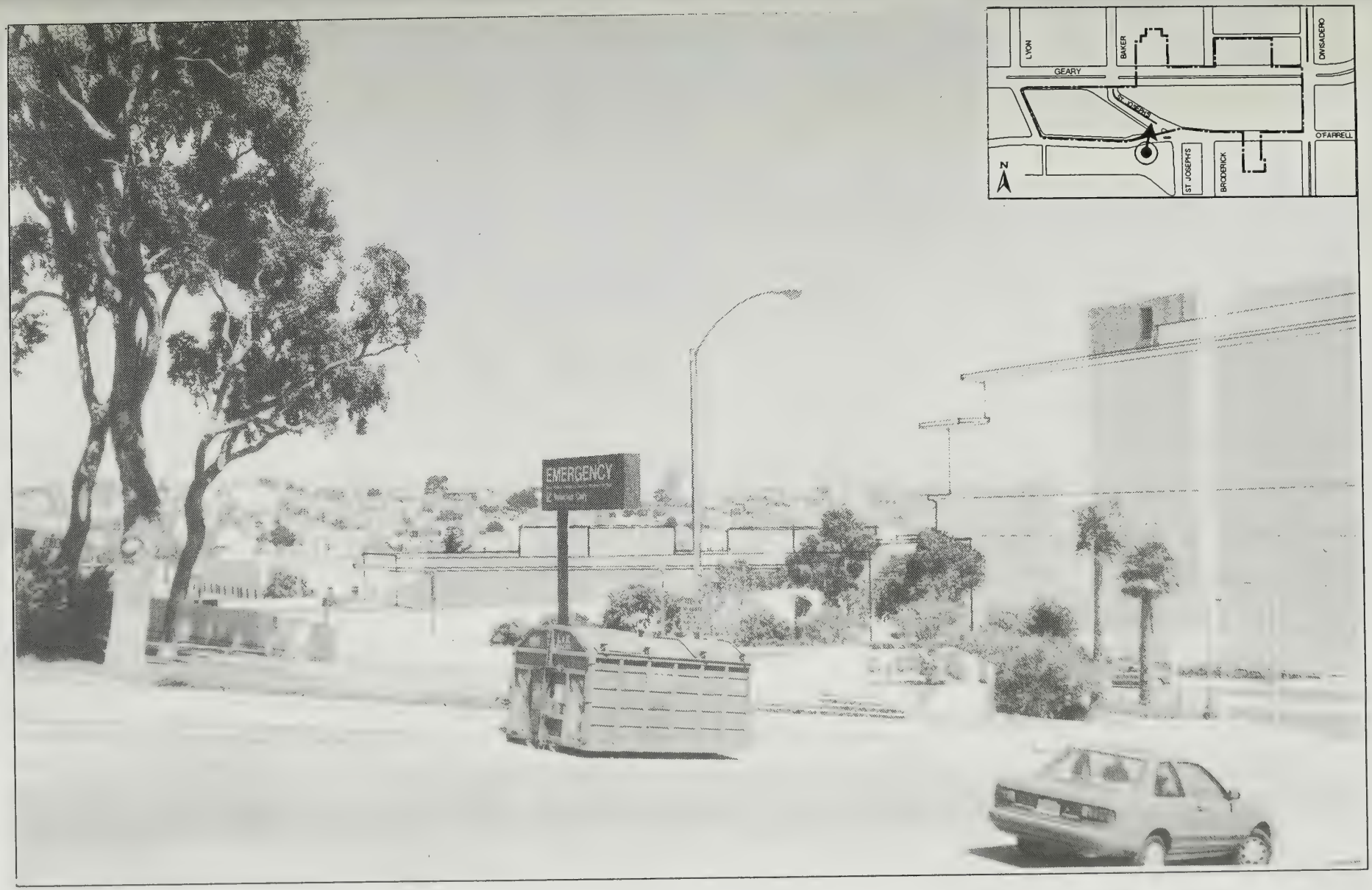
of an eight-story, 350,000-sq.-ft. building. The design and architecture would be similar to Phase 1A/2290 Geary Boulevard. This building would be articulated with upper-story setbacks similar in depth and height to those of the Phase 1A/2290 Geary Boulevard building, except that the setbacks would be incorporated on all four sides of the Phase 1C/2295 Geary Boulevard building facade.

The main part of the building would be constructed east and west of the former Broderick Street right-of-way with a three-story entry atrium at street level with waiting areas above to provide passage between the east and west building areas. A plaza area would be located off the entry atrium on the south side fronting on O'Farrell Street.

The main building areas would be constructed to the property lines on Geary Boulevard and O'Farrell Street. With the exception of the plaza and driveway area, this building would cover the entire site. The amount of development on the site would increase about 30 percent. There would be a substantial change in the building massing with new building mass along the entire site frontages of Geary Boulevard and O'Farrell Street. This sidewalk to sidewalk development would emphasize the scale of the building.

Although the overall height would be similar to the existing structures, this building would be visible from short-range and long-range vantage points, because the existing buildings at 2190 and 2200 O'Farrell Street are set back from Geary Boulevard; therefore, they are not as visible from long- and short-range vantage points along the Geary corridor.

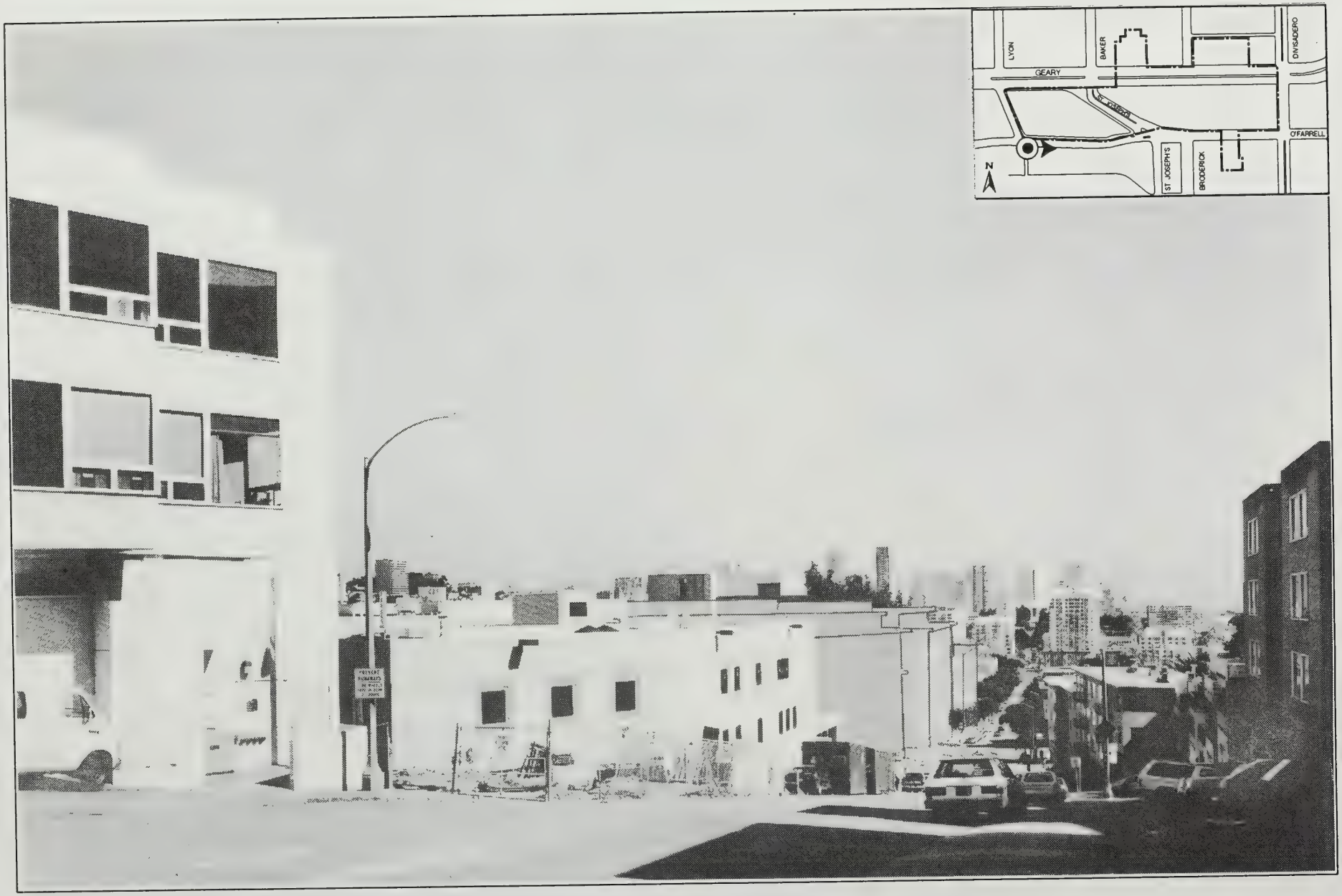
The new building would be visible from the residential buildings in the Anza Vista area to the southwest, as are the existing buildings (see Figure IV.B.5). More of the new building may be visible from Anza Vista. This building would not alter the view to the north because of the lower elevation of this site and because the height of the new building would be about the same as that of 2200 O'Farrell Street. Figure IV.B.6, p. 286, shows the view looking to the east, down O'Farrell Street.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.5
O'Farrell Street Looking North
Across Phase 2B/New 350 St. Joseph's Avenue



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

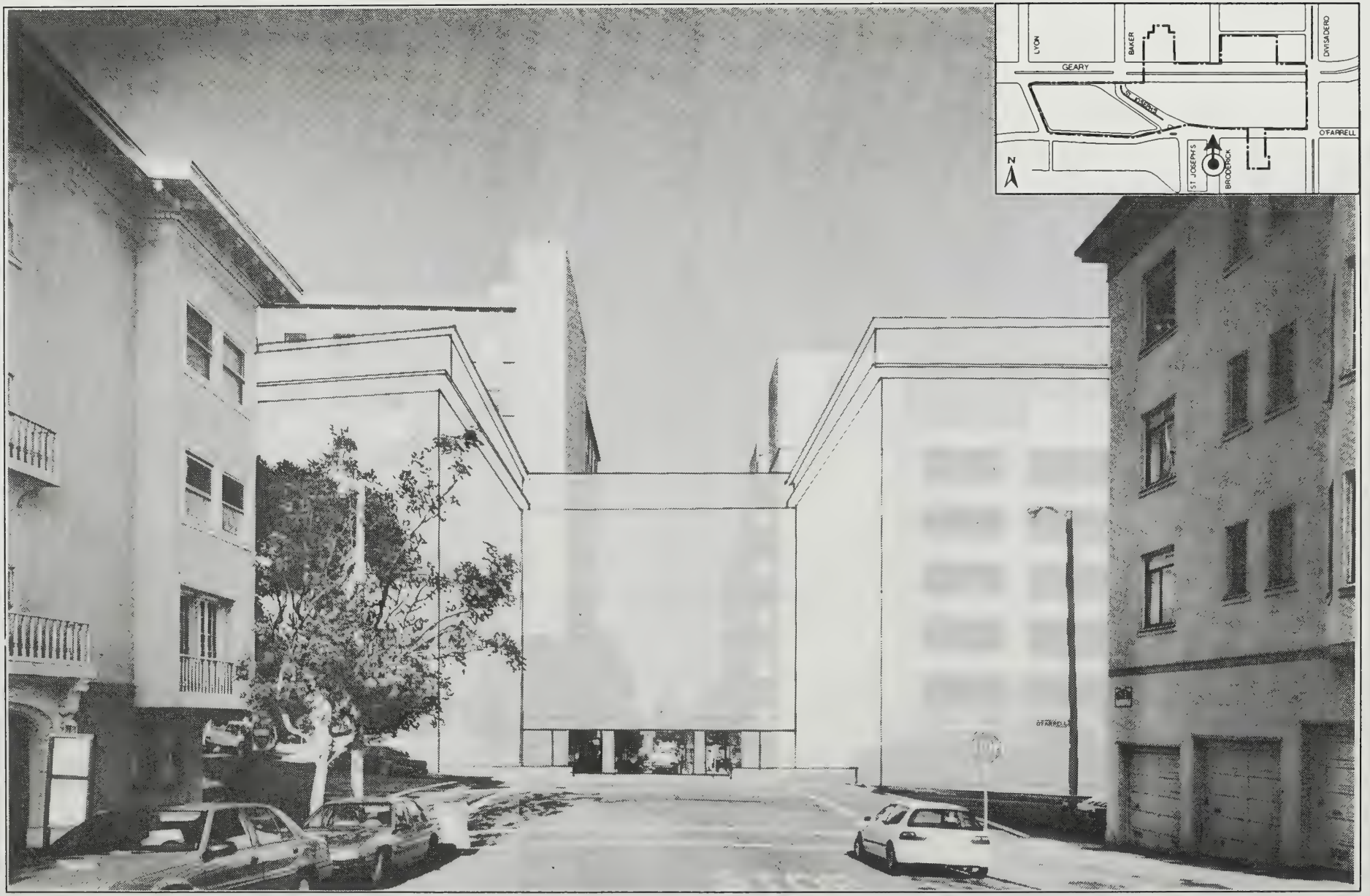
Figure IV.B.6
O'Farrell Street Corridor Looking East - Phase 2B/New 350 St. Joseph's Avenue Phase 1C/2295 Geary Boulevard, (left to right)

The existing open area between 2200 and 2190 O'Farrell Street provides a view to the north when traveling north on Broderick Street towards the site and from some residential buildings along Broderick Street between O'Farrell and Eddy Streets and provides a break in building mass along Geary Boulevard and O'Farrell Streets. The design of this building incorporates a plaza area in the former Broderick Street right-of-way. The recessed glass curtain wall above the three-story atrium articulates the facade into three segments when viewed from Geary Boulevard and O'Farrell Street. The curtain wall element containing the entrance atrium and elevated structure over the Broderick Street right-of-way would block the existing views of the hills of Pacific Heights and Presidio Heights (see Figure IV.B.7) from Broderick Street south of O'Farrell Street. The existing view looking east from O'Farrell Street and Lyon Street would show a continuous street wall towards Divisadero Street.

As with Phase 1A/2290 Geary Boulevard, the glass curtain wall incorporated into the design of Phase 1C/ 2295 Geary Boulevard would not affect pedestrians or drivers along Geary Boulevard because it would be clear non-reflective glass, and the building would contain the same ratio and type of stucco to glass as the Hospital.

The view to the southwest from the Hamilton Recreation Center playing fields currently includes the existing Kaiser buildings and the hospital on the south side of Geary Boulevard. The 2130 O'Farrell Street parking garage is located nearest the Hamilton Recreation Center; other Kaiser buildings are visible in the distance. This view would be replaced by the upper stories of the new Phase 1C/2295 Geary Boulevard and Phase 1A/2290 Geary Boulevard buildings (see Figure IV.B.8, p. 289). From Hamilton Recreation Center these buildings would appear closer and larger than those now in view.

Upon the completion of Phase 1, the area on both sides of Geary Boulevard, mid-block between St. Joseph's Avenue and Divisadero Street, would be redeveloped. The Phase 1 buildings would be greater in mass and height than existing development along Geary Boulevard. Phase 1 would increase the scale of development on both sides of Geary Boulevard and would change the view, character and impression of the streetscape from all directions.



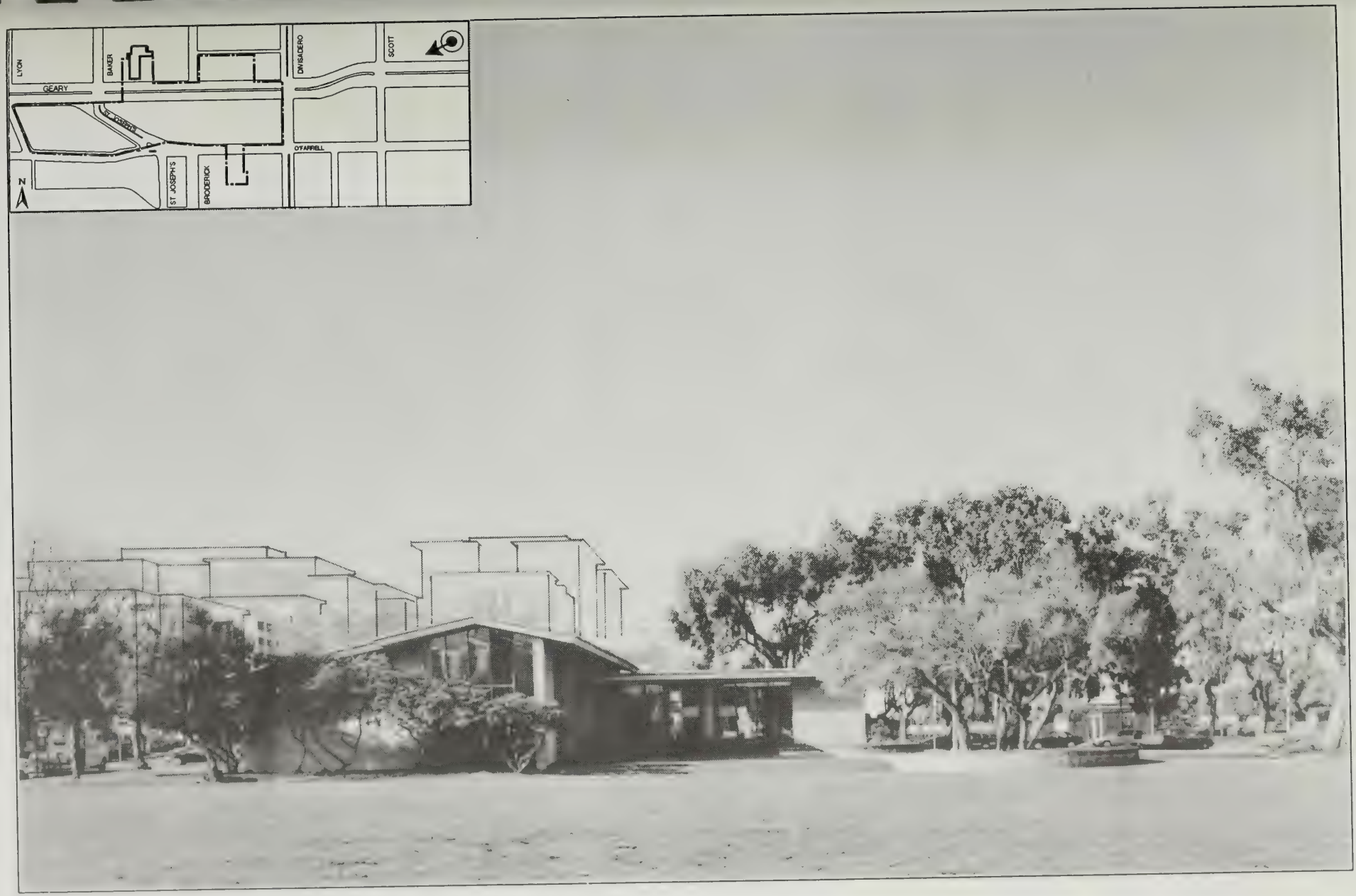
SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.7

Broderick Street / O'Farrell Street Looking North

Phase 1C/2295 Geary Boulevard



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.8

Hamilton Recreation Center Playing Fields Looking West – Phase 2A/1455 Divisadero Street Phase 1C/2295 Geary Boulevard, Phase 1A/2290 Geary Boulevard, (left to right)

A uniform street wall along both sides of Geary Boulevard would largely replace the existing one consisting of smaller-scale buildings on the north side and buildings set back from Geary Boulevard on the south side. The Phase 2A/1455 Divisadero Street site would be vacant. The pedestrian character of the north side of Geary Boulevard would be altered. The existing varied, neighborhood-commercial-scale streetscape on the north side of Geary Boulevard would be largely replaced by a single, uniform high-rise structure. The new Kaiser buildings on the south side of Geary Boulevard would block some existing pedestrian views of the Anza Vista neighborhood to the southwest. On the south side of O'Farrell Street, institutional use would be replaced by residential use, consistent with the residential character south of the project site.

YEAR 2010

Phase 2A/1455 Divisadero Street

Phase 2A/1455 Divisadero Street would be construction of a five-story, 127,000-sq.-ft. building fronting on Divisadero Street, between Geary Boulevard and O'Farrell Street. The development site would consist of the vacant area at the southwest corner of Geary Boulevard and Divisadero Street and the vacant site that would result from the demolition of the existing 1401-17 Divisadero building at the northwest corner of Divisadero and O'Farrell Streets. The building design would be similar to the design of the Phase 1A/2290 Geary Boulevard and 1C/2295 Geary Boulevard buildings. The building would occupy the entire site up to the property lines on Geary Boulevard, Divisadero Street and O'Farrell Streets. The overall height of the building would be about the same as the existing 2130 O'Farrell Street garage with the height at the corners of the building reduced to about three stories.

Although the Phase 2A/1455 Divisadero Street building would be similar in height to the existing 2130 O'Farrell Street Garage adjacent to the west, this building, when viewed from Hamilton Recreation Center to the east, would appear bigger because this site is closer. (See Figure IV.B.8, p. 289.) This building could also be seen from the Anza Vista area to the south and southwest, but would be partially obscured by the Phase 1C/2295 Geary Boulevard building

and the existing 2130 O'Farrell Street garage. This building would only be visible at short-range when viewed from the north due to the lower elevation of this site. (See Figure IV.B.6, p. 286.)

The view from the intersection of Geary Boulevard and Divisadero Street from the east and southeast would be substantially altered from an undeveloped area and the blank eastern facade of the 2130 O'Farrell Street parking garage (see Figure IV.B.4, p. 283) to a five-story building mass with windows, entrance and other architectural details on the facade.

Phase 2B/New 350 St. Joseph's Avenue

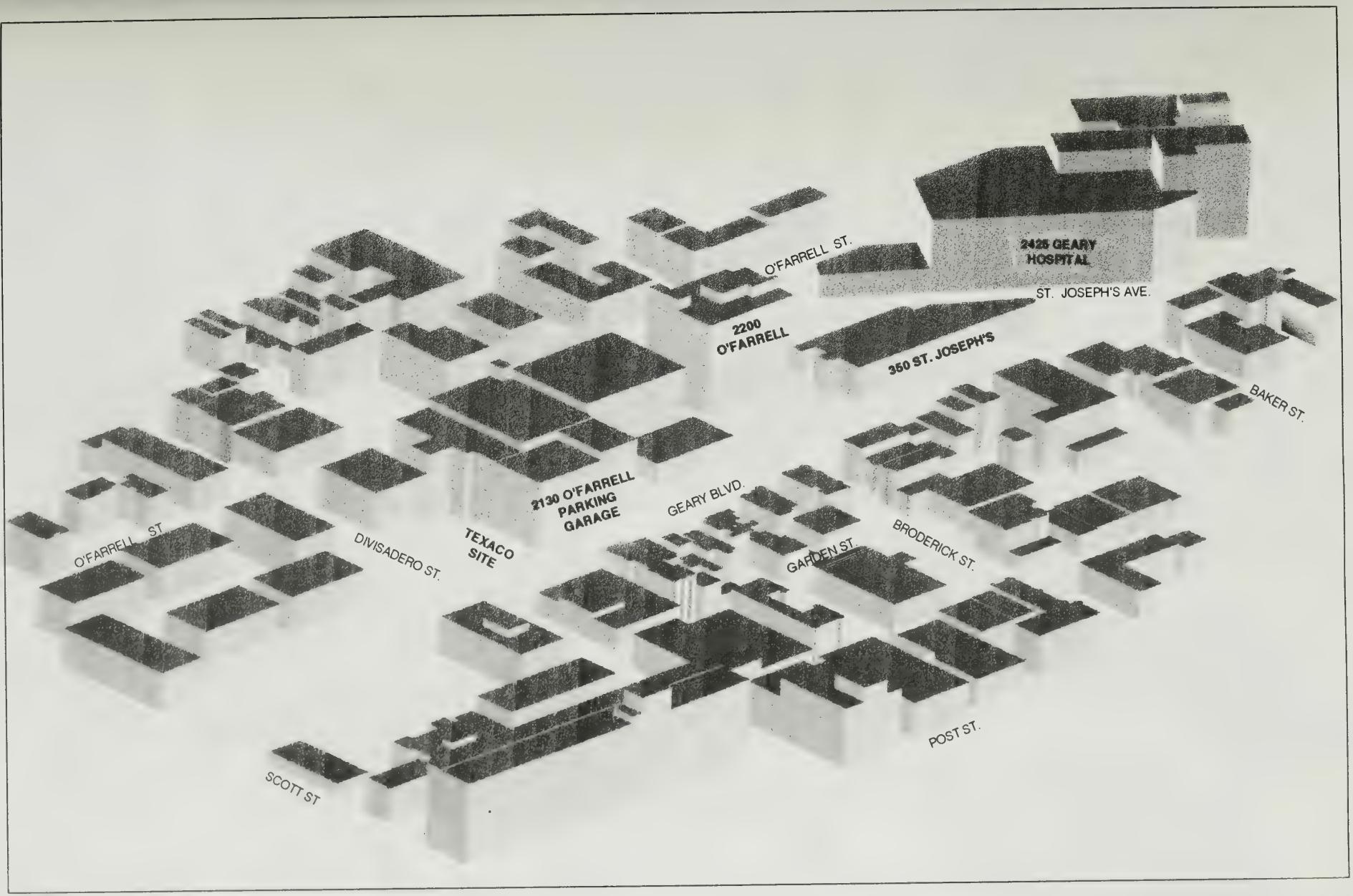
Phase 2B/New 350 St. Joseph's Avenue would replace the existing two-story building with a three-story building. The amount of development on the site would increase about 200 percent. The design and facade treatment would be similar to the hospital to the west and the other Phase 1 and Phase 2 buildings.

The building would be visible from the Geary corridor at short range. The view from the east would be obstructed by the median landscaping and the eight-story Phase 1C/2295 Geary Boulevard building. The view of this building from the west of Geary Boulevard would be limited due to the intervening hospital.

The Phase 2B/New 350 St. Joseph's Avenue building would be partially visible from the Anza Vista area located to the south and southwest. With the height of this building at three stories, the existing views from the Anza Vista area of Pacific Heights and Presidio Heights to the north, and the downtown skyline to the northwest, would be preserved. The view of this building from the residences located at the lower elevation of O'Farrell Street would be partially obscured by the existing Hospital and landscaping around the Hospital.

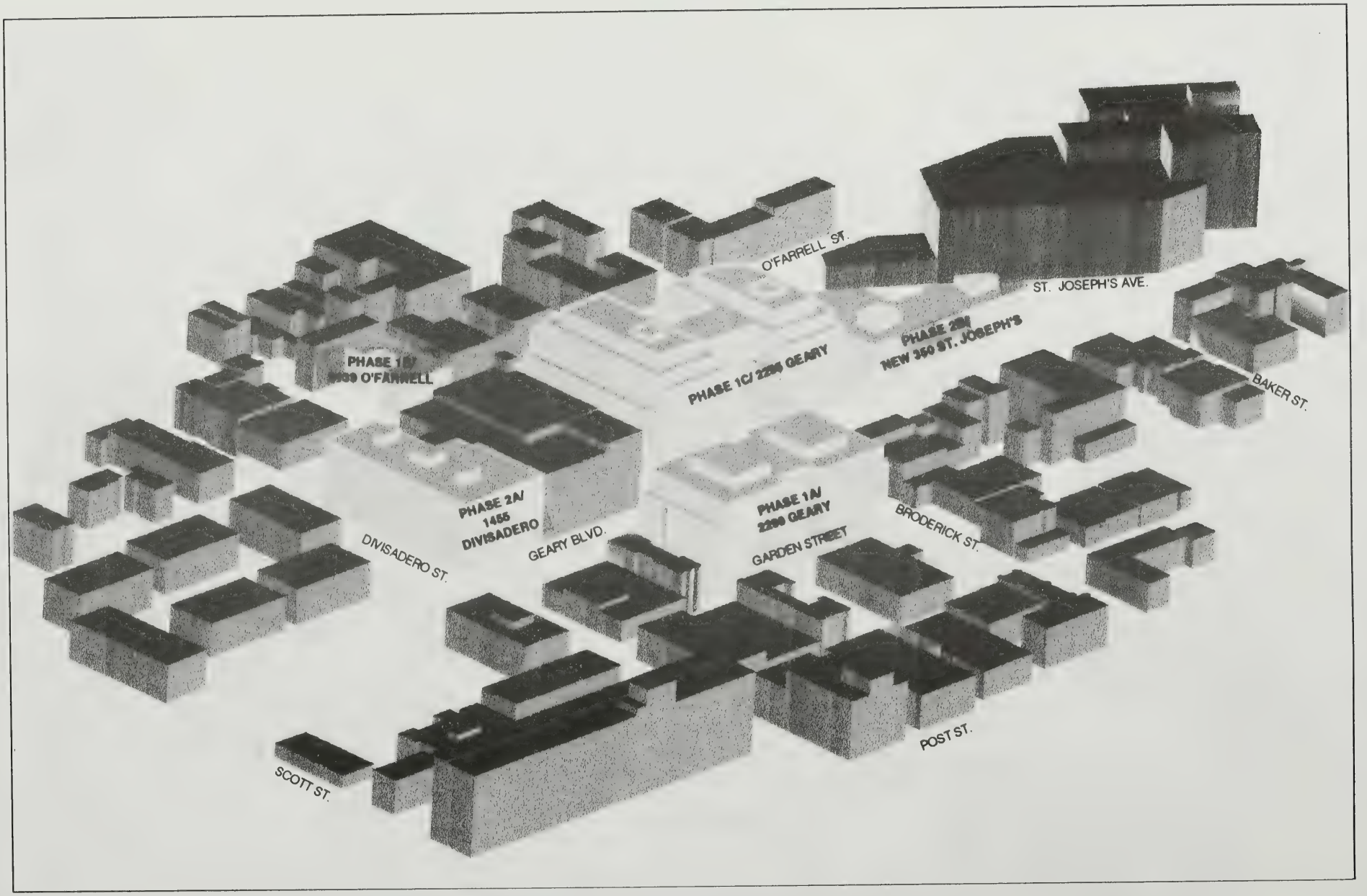
Upon completion of Phase 2, the entire Geary Campus would be developed with large-scale institutional buildings similar in architectural style, size, bulk and scale to the Hospital. All of the proposed buildings would be constructed to the front property lines. This would intensify the

concentration of institutional development on the campus but would provide little transition to the smaller-scale buildings surrounding the Geary Campus. The campus would have an urbanized, unified appearance, especially along Geary Boulevard, due to the massing of 2295 Geary and 2290 Geary Boulevard. (See Figure IV.B.1, p. 279.) Figure IV.B.9 and IV.B.10, pp. 293 and 294, provide an isometric view of this change.



SOURCE: CADP, Inc.

Figure IV.B.9
Isometric View of the Existing Vicinity



SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.B.10
Isometric View of the Vicinity with Kaiser Geary Campus Phase 1 and Phase 2

C. ARCHITECTURAL RESOURCES

Except for the existing 2280 Geary Boulevard/41-47 Garden Street building on Phase 1A/2290 Geary Boulevard, none of the buildings rated in the DCP 1976 survey are located within one block of the project site (see Figure III.C.1, p. 142). Divisadero Street and the western portion of Assessor's Block 1100 serve as a buffer between the Geary Campus and the Biedeman Street area. The project would not affect the rated buildings near the project vicinity, nor would it affect the existing character of the Biedeman Street area.

YEAR 2000

Phase 1A/2290 Geary Boulevard

The project would demolish the 11 existing buildings on the Phase 1A/2290 Geary Boulevard site, including the 2280-82 Geary Boulevard/41-47 Garden Street building, listed with a rating of "0" in the 1976 DCP survey (see Figure III.C.2, p. 146). A building rated "0" is considered "contributory" or "neutral" such that by itself, it would not be considered architecturally significant. The building is not listed in any other surveys of architectural resources and is not designated as a City landmark, or listed in the National Register of Historic Places. The Geary Boulevard facade of the 41-47 Garden Street building has been partially obscured since 1955 when the building originally located at 2266 Geary Boulevard was relocated to the southern portion of this lot.[1] When these buildings were renovated in 1983 as medical offices, little of the original facades remained. Since extensive exterior and interior renovation was undertaken after DCP surveyed it in 1976, the ratings in the 1976 DCP Survey may no longer be applicable to this building. The alterations appear to not comply with the Secretary of the Interior's standard of rehabilitation of historic buildings.

The 2250 and 2256 Geary Boulevard buildings would also be demolished during Phase 1A/2290 Geary Boulevard (see Figure III.C.3, p. 148). These buildings may be among the oldest extant structures in the area and are noted in the Appendix to *Here Today*.[2] The 2250 Geary Boulevard

building is considered a good example of its type and period, and has maintained its overall character. The 2256 Geary Boulevard building is a relatively rare, but not unique, style in San Francisco, and is considered to have lost much of its overall character. Owners and occupants of 2250 and 2256 Geary Boulevard in the 1870s and 1880s were associated with Holy Cross Church in the then-existing Calvary Cemetery south of Geary Boulevard, or with floral businesses and plant nurseries in the site vicinity.

Demolition of 2250 Geary Boulevard and 2256 Geary Boulevard would remove structures associated with early development in the area, and possessing architectural character representative of the period. These buildings are in poor condition and require major structural improvements.[3] Neither of these buildings is rated in any architectural surveys, designated as a City landmark, or listed in the National Register of Historic Places.

The project would also demolish the existing buildings on the Phase 1A/2290 Geary Boulevard site at 2292-96 Geary Boulevard, 2270-74 Geary Boulevard, 2266 Geary Boulevard, 2242 Geary Boulevard, 2240 Geary Boulevard, 2232-38 Geary Boulevard, 25 Garden Street, 11-19 Garden Street. None of these buildings have been listed in surveys of architectural or historical significance, or have been designated as City landmarks.

Phase 1B/2139 O'Farrell Street

The buildings at 2139 O'Farrell Street and 1401-17 Divisadero Street would be demolished during Phase 1B/2139 O'Farrell Street of the project. Neither of these buildings is considered to be of unique architectural or historical significance.

Phase 1C/2295 Geary Boulevard

The Kaiser buildings at 2190 and 2200 O'Farrell Street would be demolished during Phase 1C/2295 Geary Boulevard of the project. Both of these buildings were constructed in the mid-

1960s. The 2190 O'Farrell Street garage was recently renovated in 1995 with a new facade. Demolition of these buildings would not adversely affect any architectural or historic resources.

YEAR 2010

Phase 2B/New 350 St. Joseph's Avenue

The 350 St. Joseph's Avenue building which would be demolished is not considered to be of architectural or historical significance.

NOTES - Architectural Resources

1. Permit Application No. 176421, Permit No. 158006 issued on July 1, 1955.
2. Junior League of San Francisco, Inc., *Here Today, San Francisco's Architectural Heritage.* Chronicle Books: San Francisco, 7th printing, 1973, p. 268.
3. Architectural Resources Background Report - San Francisco Kaiser Geary Campus Expansion Project, prepared by Patrick McGrew Associates Architects, September 1996.

D. CULTURAL RESOURCES

YEAR 2000 AND YEAR 2010

A potential for the presence of prehistoric or protohistoric subsurface cultural resources exists in the study area. Recent discoveries of deeply buried, previously unrecorded, archaeological sites in the City suggest that prudence be exercised before concluding that such cultural resources do not exist within the present study area. Well-preserved prehistoric deposits have been encountered at depths ranging between 15 and 20 ft. below the present street grade, in properties where extensive 19th century activities had substantially lowered the original ground surface, and where it would have been reasonable to assume that any buried prehistoric remains would have been destroyed. Because relatively little topographic alteration took place in the study area when the City graded the Western Addition during the second half of the 19th century, it appears possible that buried prehistoric or protohistoric cultural resources (if they exist) may still be in relatively intact condition beneath the ground surface of the study area at least to the depth of the base of the dune sand (20 to 50 ft.), and possibly in the underlying mixture of alluvial and wind-blown deposits (20 to 100 ft.). These sediments would be penetrated by the proposed excavations, which would extend to between 45 and 65 ft. below the ground surface, over an area that would total about 3.2 acres by the time the proposed project was fully constructed. One cannot assume that intensive development and urbanization inevitably destroyed all underlying prehistoric archaeological resources. Because the subject area may have been situated within an interface of ecological communities (i.e., the Bay, Lone Mountain) favorable for Native American habitation, prudence must be exercised when considering the possible presence of previously undocumented prehistoric archaeological deposits.

There is little likelihood of encountering deposits of subsurface cultural resources from the Spanish/Mexican or Early American periods (1775-1848) in the study area. Similarly, the prospects of unearthing deposits of Gold Rush era (1849-1857) cultural resources in the study area do not appear to be substantial. Archival data indicate that between 1776 and the late 1850s, the study area remained in a completely natural state, unoccupied and unexploited.

There appears to be a substantial possibility of encountering subsurface cultural resources of potential significance associated with the Later Nineteenth Century period at one or more locations in the study area. The earliest documented use and development within the study area can be traced to 1859, when the Roman Catholic Calvary Cemetery was established. Grading and development began in the late 1860s or early 1870s. From that time until the turn of the century, Assessor's Blocks 1079, 1098 and 1101 were mostly occupied by modest, one and two-story residential structures. It is possible that architectural remains or related cultural features of potential significance, from this era (such as trash pits, filled-in wells, or the remnants of privy vaults) may be unearthed at relatively shallow depths (less than 10 ft.). Such cultural deposits would have to be evaluated carefully in terms of their stratigraphic integrity, cultural characteristics or historical associations before a specific determination of significance could be assessed.

It is possible that human remains or associated mortuary artifacts of the Calvary Cemetery may still exist at relatively shallow depths (less than 10 ft.) within the western half of Assessor's Block 1098 (Phase 2B/New 350 St. Joseph's Avenue and at least the western part of Phase 1C/2295 Geary Boulevard). This part of the study area is in the boundaries of the old Calvary Cemetery site. The rest of the study area is directly adjacent to this 19th-century burial ground and also may contain mortuary artifacts. During the 1930s, the San Francisco Board of Supervisors enacted an ordinance which mandated the removal of all cemeteries from the City; the removal and relocation often was conducted rather haphazardly. Several human remains from 19th century cemeteries have been discovered in San Francisco during 20th-century construction. In the 1950s, a portion of a human skull was discovered near the intersection of Geary Boulevard and Masonic Avenue by a man digging in his garden. This skull was almost certainly associated with the old Calvary Cemetery.[1] In 1989, pre-construction archaeological test excavations in the old Calvary Cemetery discovered no human remains, but uncovered inscribed tombstones and an uninscribed grave marker.[2] Archaeological monitoring during construction recovered additional inscribed tombstones and uninscribed grave markers, as well as a white marble statue and a large, triangular fragment of carved white marble.[3] If unearthed during excavation for Phase 2B/New 350 St. Joseph's Avenue, historic era human remains or associated artifacts must be deemed of potential significance from the perspectives of both archaeology and history, and

appropriate measures should be taken to dispose of any human remains recovered and to evaluate artifacts encountered.

A mitigation measure to address potential impacts of excavation on cultural resources is proposed in V.B. Cultural Resource, pp. 488 - 489.

NOTES - Cultural Resources

1. Gladys Hansen, Librarian, San Francisco Public Library, personal communication, August 8, 1988, as reported in Archeo-Tec *Archival Cultural Resources Evaluation of the Kaiser Institutional Master Plan EIR*, October 1995, p. 44.

2. Archeo-Tec, *San Francisco Medical Center Hospital North Addition Project: Pre-construction Archaeological Testing Program*, 1989. Cited in Archeo-Tec, 1995: a copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of City Planning, 1660 Mission Street, San Francisco.

3. Archeo-Tec, *San Francisco Medical Center Hospital North Addition Project: On-site Archaeological Monitoring Program*, 1989. Cited in Archeo-Tec, 1995: a copy of this unpublished report is on file and available for public review at the Office of Environmental Review, Department of City Planning, 1660 Mission Street, San Francisco.

E. SHADOWS AND WIND

SHADOWS

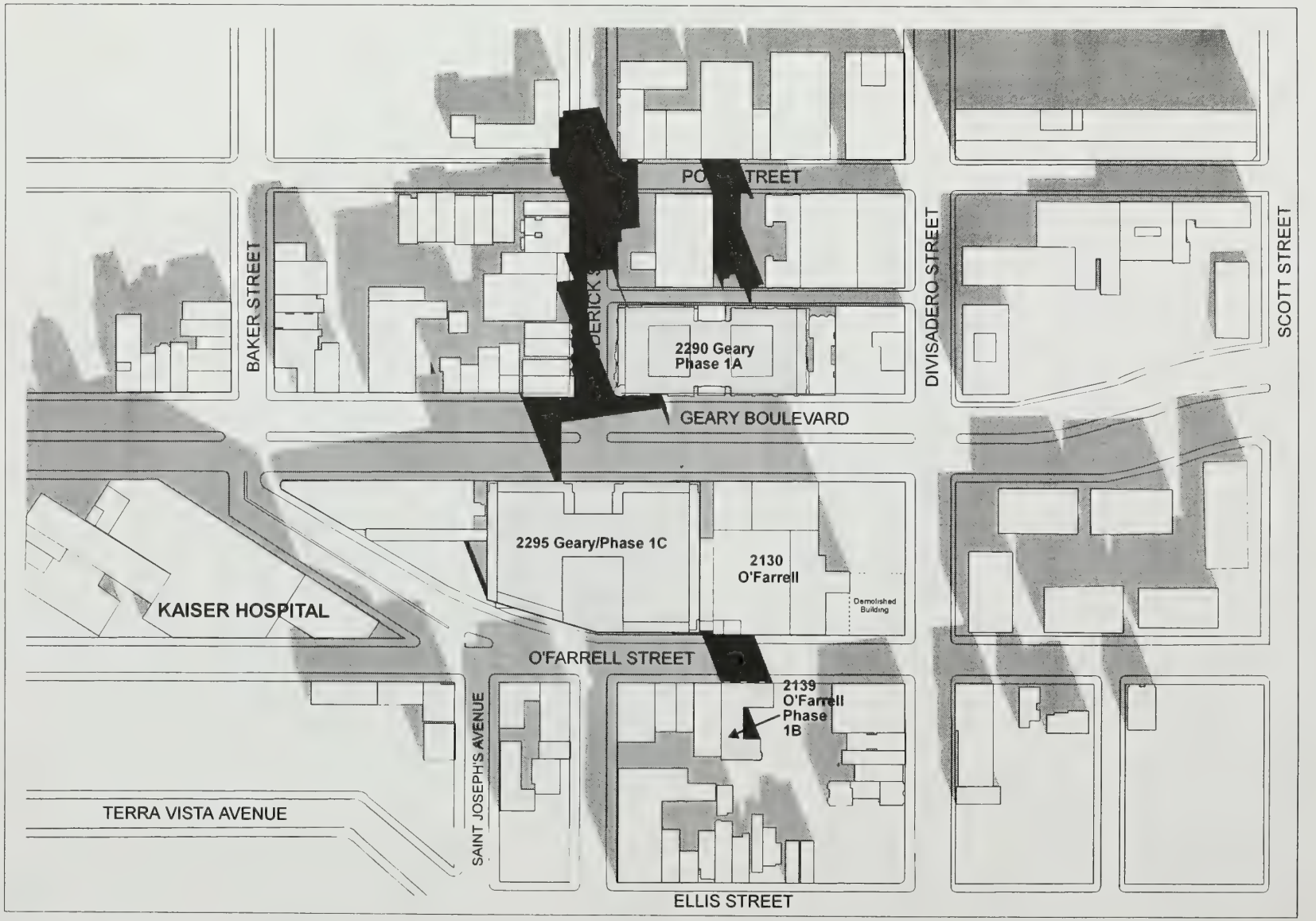
Public open space in the project vicinity, existing and zoned, as shown on the City Planning Code zoning maps, is limited to Hamilton Recreation Center, located approximately one block east of the project site to the north of Geary Boulevard and east of Scott Street. New development over 40 ft. in height which cast shadows on Hamilton Recreation Center would be subject to the Sunlight Ordinance (Section 295 of the City Planning Code, should new shadows from the project reach the park property). The project site and immediate vicinity includes parking lots, street and sidewalk areas, open building entry areas and courtyards.

Year 2000

The project would cast new shadows on the streets and sidewalks adjacent to the campus, and on nearby buildings and private properties, in addition to the shadows cast by existing buildings. New shadows created by Phase 1 of the project are described below.

December 21 (PST)

At 10:00 a.m. (see Figure IV.E.1), the Phase 1A/2290 Geary Boulevard building would add about 250 linear feet of new shadow along Broderick Street and the parallel sidewalk areas, in the area approximately between the north side of Garden Street and slightly north of Post Street, and about 175 linear feet of new shadow into the parking lot to the north of the proposed building. At this same time, the Phase 1B/2139 O'Farrell residential building would cast about 75 linear feet of new shadow on the sidewalks on both sides of O'Farrell Street. The Phase 1C/2295 Geary building would cast about 190 linear feet of new shadow along the west side of Broderick Street, and about 200 linear feet of new shadow on the north side of Geary Boulevard. At 12:00 p.m. (see Figure IV.E.2, p. 303) the Phase 1A/2290 Geary building would shade about



December 21 at 10:00 a.m. - Phase 1

Net New Shadows

Existing Shadows

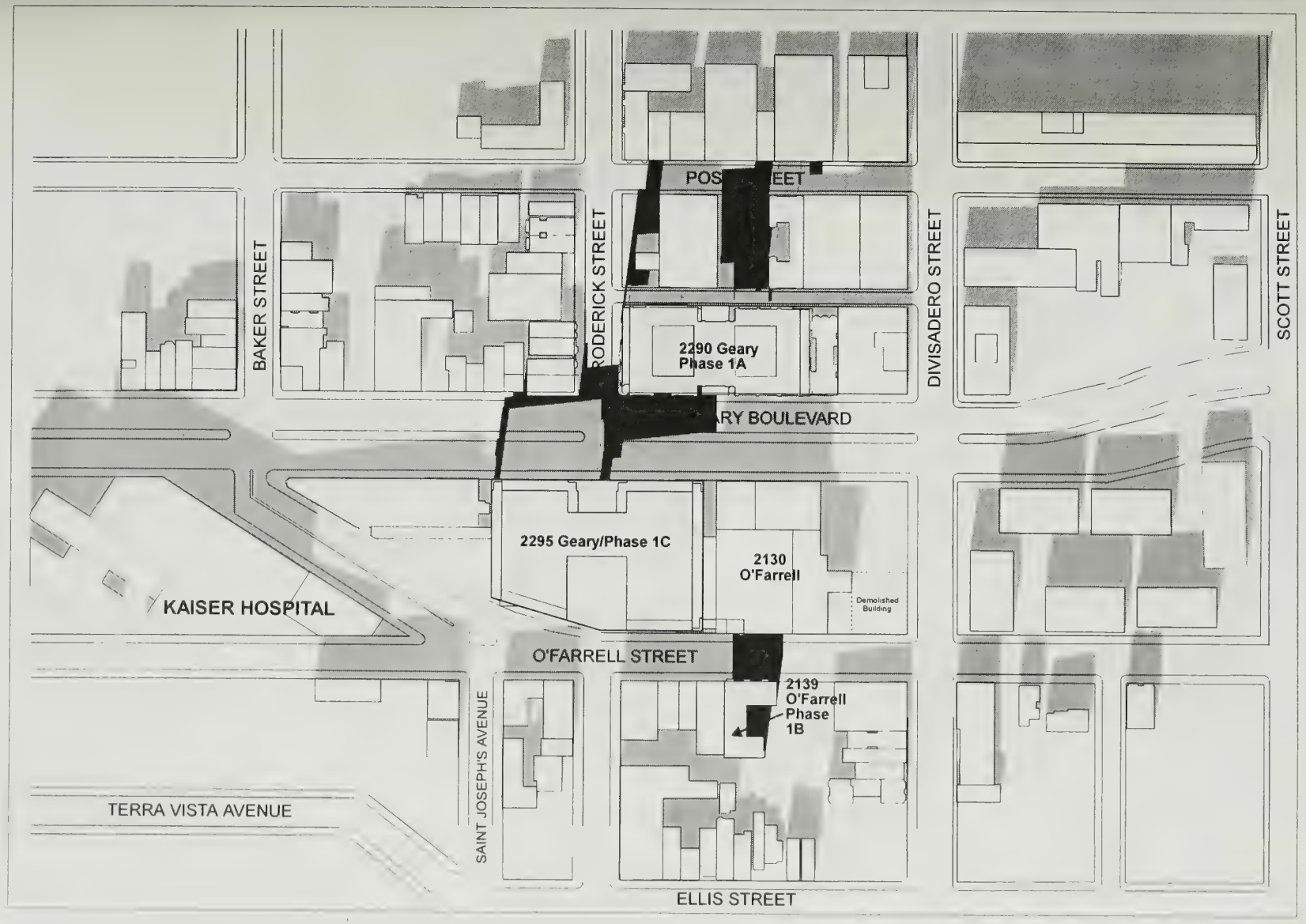
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.1
Phase 1 - Project Shadow Patterns
December 21 (10 a.m.)



December 21 at 12:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

0 250

FEET

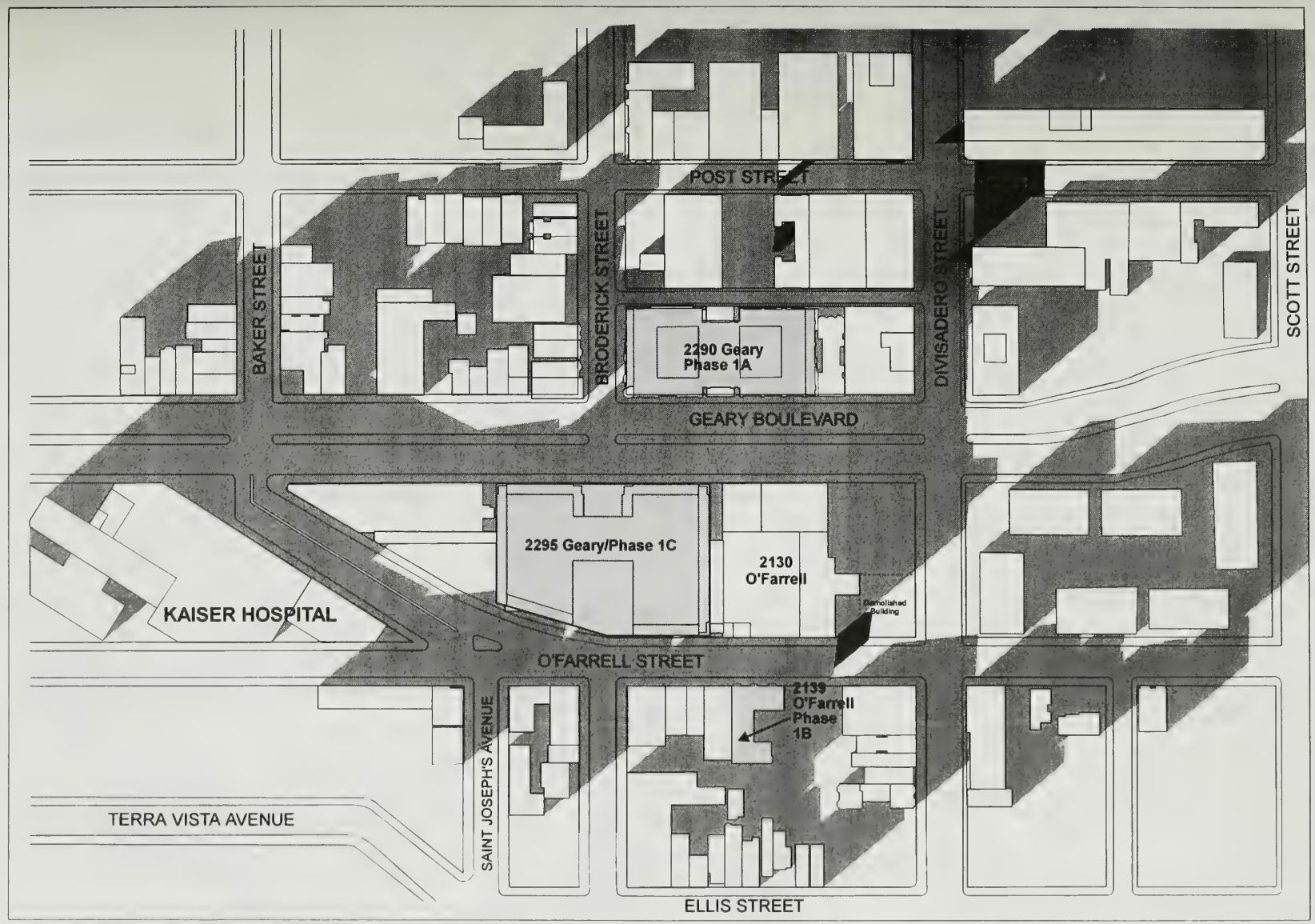
SOURCE: CADP, Inc.

Figure IV.E.2
Phase 1 - Project Shadow Patterns
December 21 (12:00 p.m.)

175 linear feet, reaching the north side of Post Street, and the parking area north of Garden Street. The Phase 1B/2139 O'Farrell building would cast about 75 linear feet of new shadow from the south to the north sidewalk of O'Farrell Street. The Phase 1C/2295 Geary building would add about 150 linear feet of new shadow along the sidewalk area on the north side of Geary Boulevard. At 3:00 p.m. (see Figure IV.E.3), the Phase 1A/2290 Geary building would add about 100 linear feet of new shadow to the area just east of the intersection and a parking lot on the southeast corner of Divisadero and Post Streets. The Phase 1B/2139 O'Farrell building would add approximately 50 linear feet of new shadow to the sidewalks southeast of the 2130 O'Farrell building. The Phase 1C/2295 Geary building would not add new shadow at this time.

March 21 (PST)

At 10:00 a.m. on March 21 (see Figure IV.E.4, p. 306), the Phase 1A/2290 Geary building would add about 100 linear feet of new shadow along both sides of Broderick Street north of Geary Boulevard, including the sidewalks, and into Garden Street and the parking lot north of the Phase 1A building. Phase 1B/2139 O'Farrell Street would cast about 100 linear feet of new shadow along its northern frontage, reaching about half-way across O'Farrell Street. Phase 1C/2295 Geary Boulevard would add about 300 linear feet of new shadow on the south sidewalk of Geary Boulevard near the north frontage of the building and about half-way across the street. At 12:00 p.m. (see Figure IV.E.5, p. 307), the new shadows from Phase 1A/2290 Geary Boulevard would shade Garden Street and the parking lot north of the site. Phase 1B/2139 O'Farrell Street would shade about 100 linear feet along the south sidewalk of O'Farrell Street and part of its proposed courtyard. The Phase 1C/2295 Geary building would shade the south sidewalk of Geary Boulevard. At 3:00 p.m. (see Figure IV.E.6, p. 308), new shadows from the Phase 1A/2290 Geary building would shade approximately 200 linear feet along Garden Street. The Phase 1B/2139 O'Farrell building would shade about 75 linear feet to the east along O'Farrell Street. About 150 linear feet of new shadows would be cast by Phase 1C/2295 Geary Boulevard along the south sidewalk of Geary Boulevard to the east of the building, reaching almost half-way across the street.



December 21 at 3:00 p.m. - Phase 1

Net New Shadows

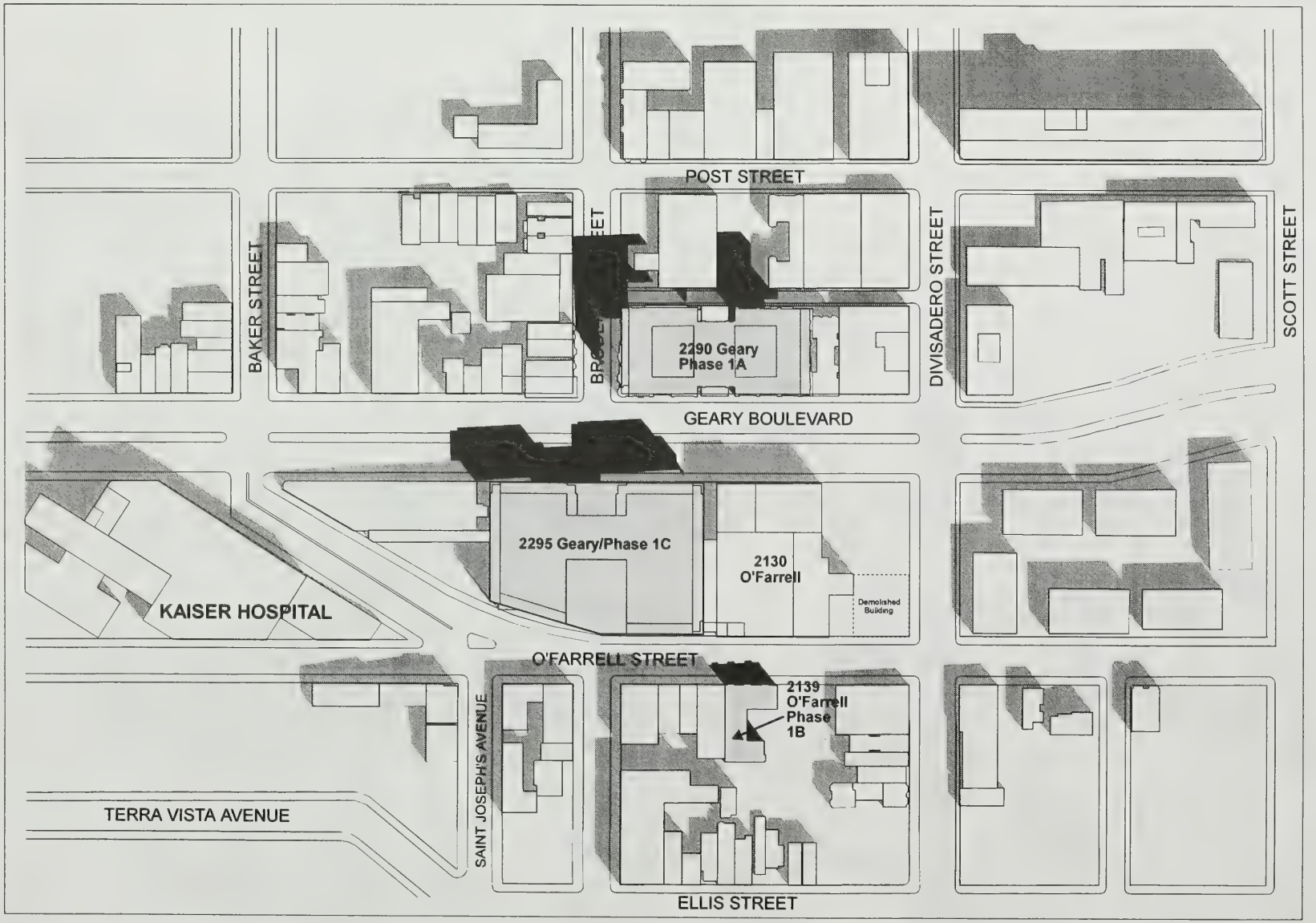
Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

Figure IV.E.3
Phase 1 - Project Shadow Patterns
December 21 (3:00 p.m.)



March 21 at 10:00 a.m. - Phase 1

Net New Shadows

Existing Shadows

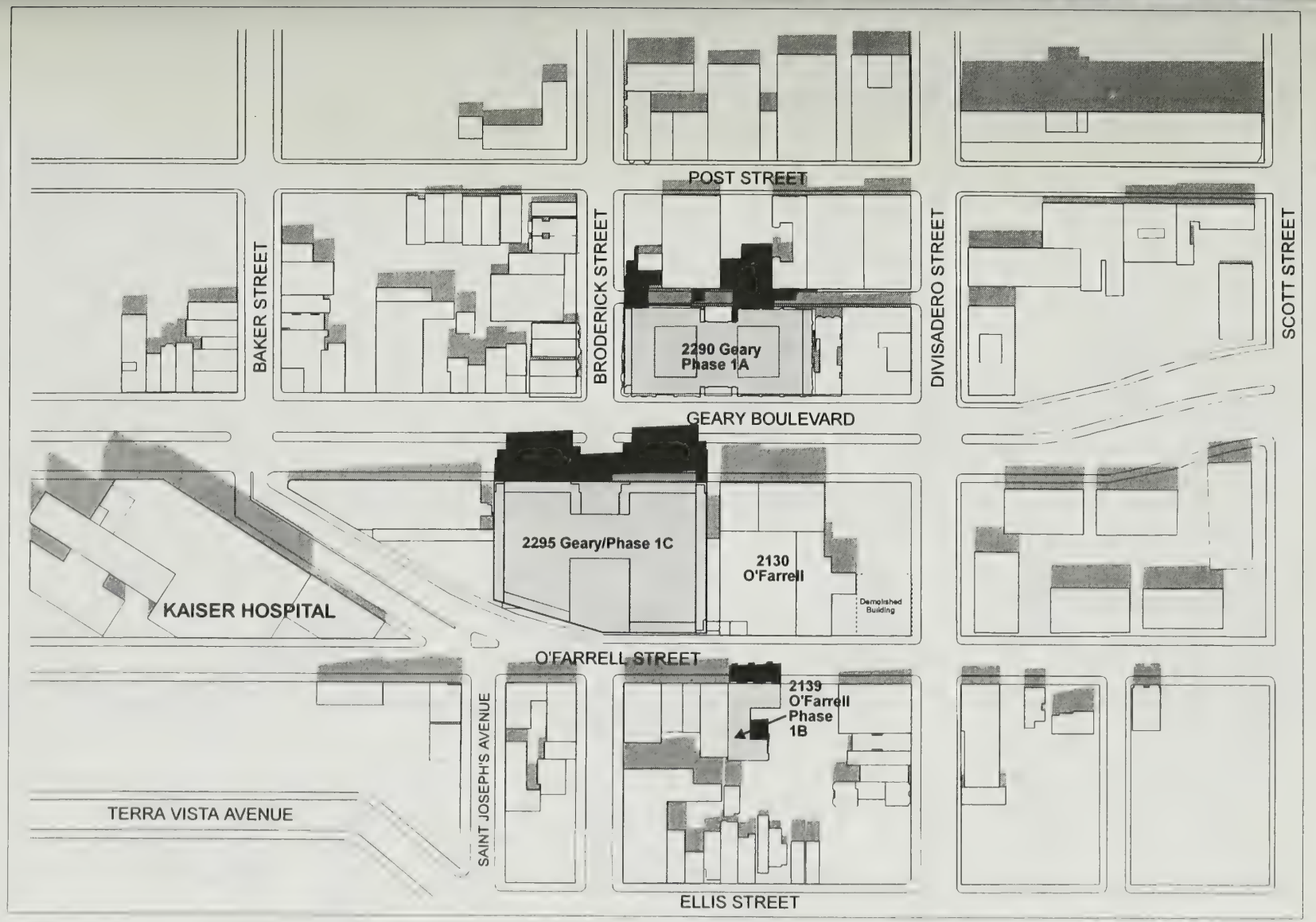
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.4
Phase 1 - Project Shadow Patterns
March 21 (10:00 a.m.)



March 21 at 12:00 p.m. - Phase 1

Net New Shadows

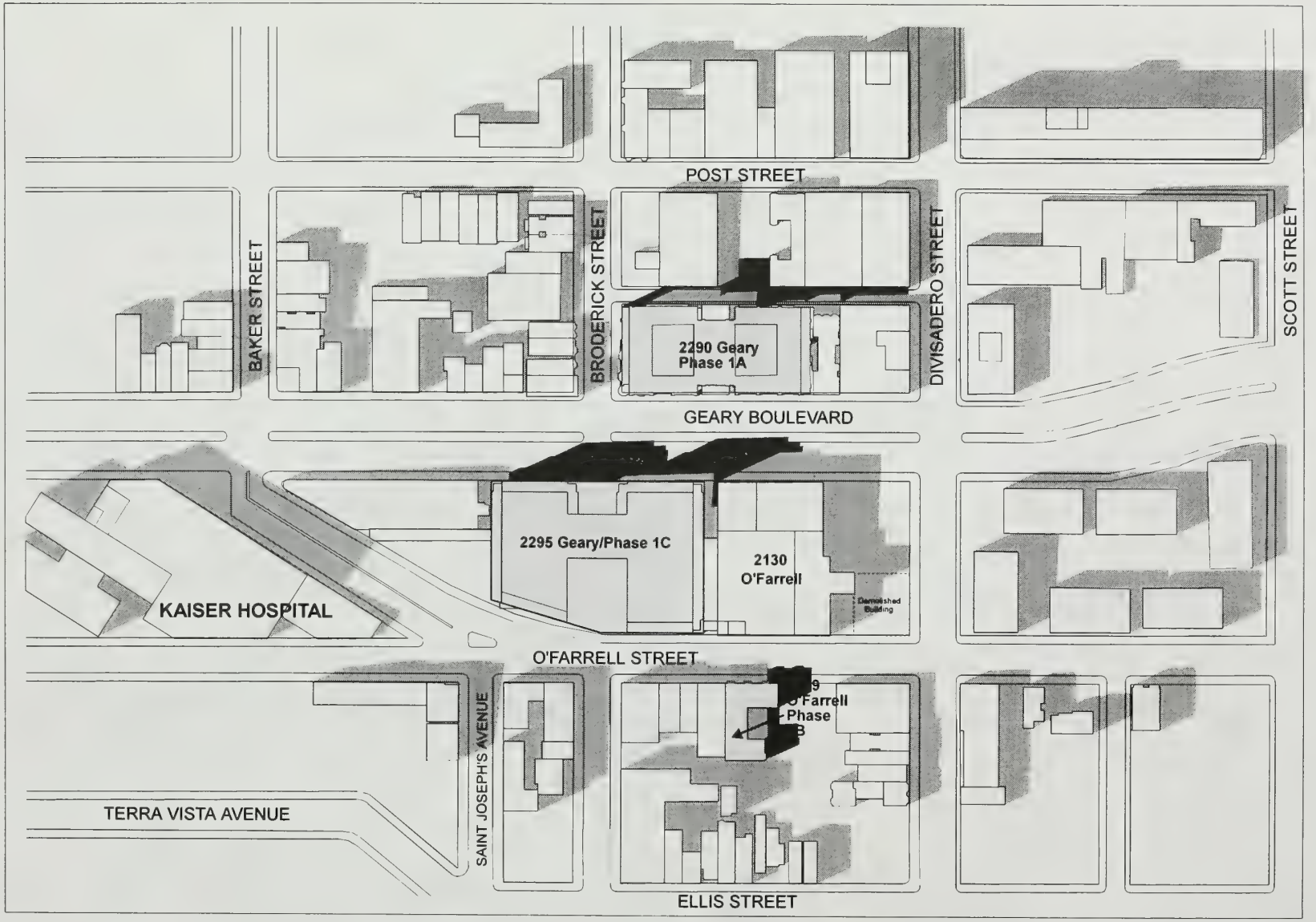
Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

Figure IV.E.5
Phase 1 - Project Shadow Patterns
March 21 (12:00 p.m.)



March 21 at 3:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

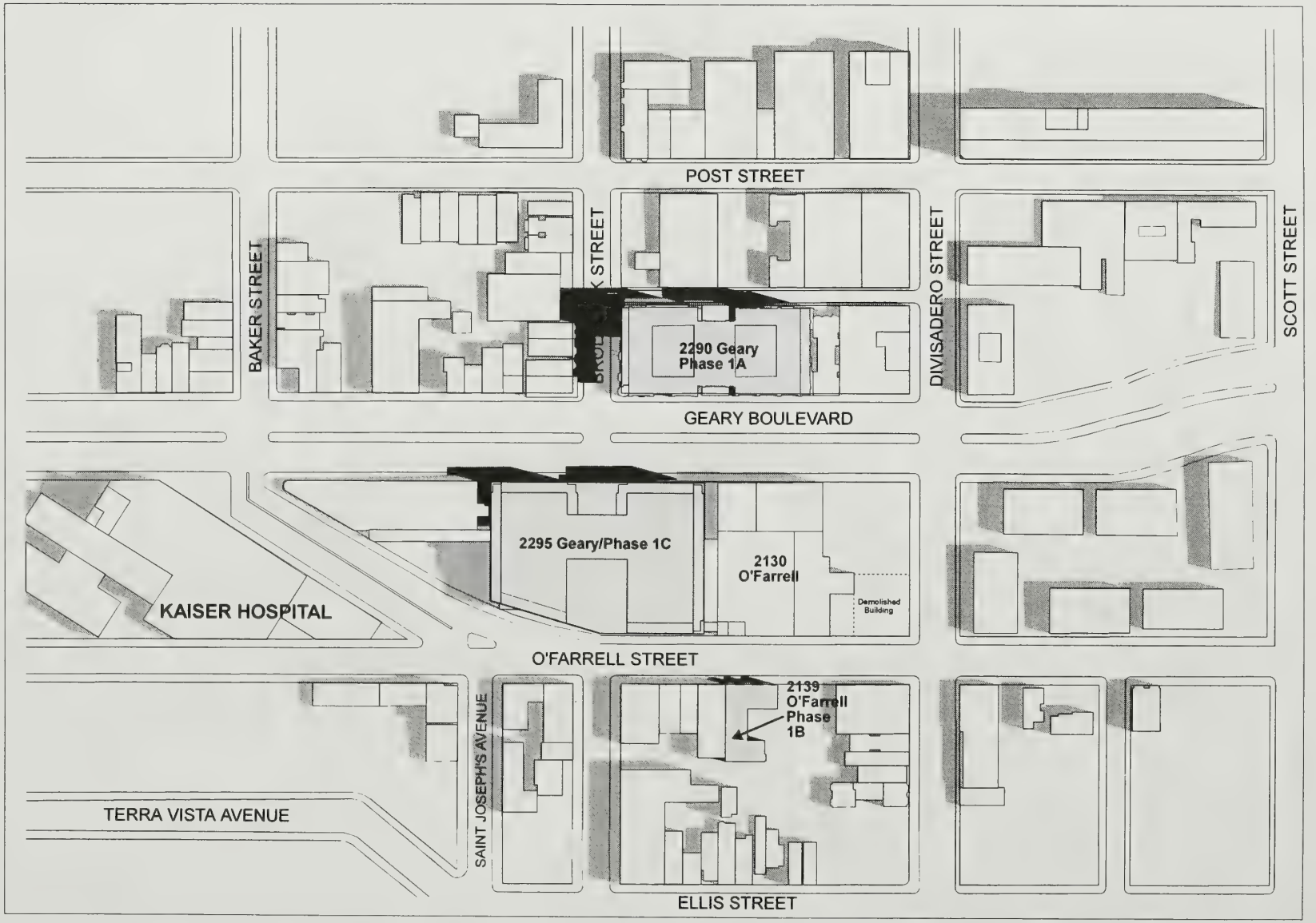
Figure IV.E.6
Phase 1 - Project Shadow Patterns
March 21 (3:00 p.m.)

June 21 (PDT)

At 10:00 a.m. on June 21 (see Figure IV.E.7), Phase 1A/2290 Geary Boulevard would add about 150 linear feet of new shadow along the west sidewalk of Broderick Street, and along both sides of Garden Street for about 250 linear feet. The Phase 1B/2139 O'Farrell building would cast about 75 linear feet of new shadow on the south sidewalk of O'Farrell Street. The Phase 1C/2295 Geary building would add new shadow for about 300 linear feet on the south sidewalk of Geary Boulevard. At 12:00 p.m. (see Figure IV.E.8, p. 311), new shadows would extend to about 150 linear feet along the west side of Phase 1A/2290 Geary and for about 75 linear feet along the north side of the Phase 1B/2139 O'Farrell building. About 350 linear feet of new shadow would be cast along the north side of the Phase 1C/2295 Geary building, covering the south sidewalk of Geary Boulevard. At 3:00 p.m. (see Figure IV.E.9, p. 312), the Phase 1A/2290 Geary building would cast about 250 linear feet of new shadow along the south side of Garden Street. New shadows would also be cast for about 100 linear feet by the Phase 1B/2139 O'Farrell building, along the east side of the building and parts of the O'Farrell Street sidewalk. Phase 1C/2295 Geary building would cast about 300 linear feet of new shadow along the south sidewalk of Geary Boulevard.

September 21 (PDT)

At 10:00 a.m. on September 21 (see Figure IV.E.10, p. 313), the Phase 1A/2290 Geary building would cast about 175 linear feet of new shadow along the west side of the structure, shading the sidewalk areas on both sides of Broderick Street, and would cast about 100 linear feet of new shadow across Garden Street and into the parking lot to the north. The Phase 1B/2139 O'Farrell building would add about 75 linear feet of new shadow along the north side of the building, reaching approximately half-way across O'Farrell Street, covering the south sidewalk. The Phase 1C/2295 Geary building would add about 350 linear feet of new shadow along the south sidewalk of and extending approximately three-quarters of the way across Geary Boulevard. At 12:00 p.m. (see Figure IV.E.11, p. 314), the Phase 1A/2290 Geary building would cast about 175 linear feet of new shadow directly north; the Phase 1B/2139 O'Farrell



June 21 at 10:00 a.m - Phase 1

Net New Shadows

Existing Shadows

0 250

FEET

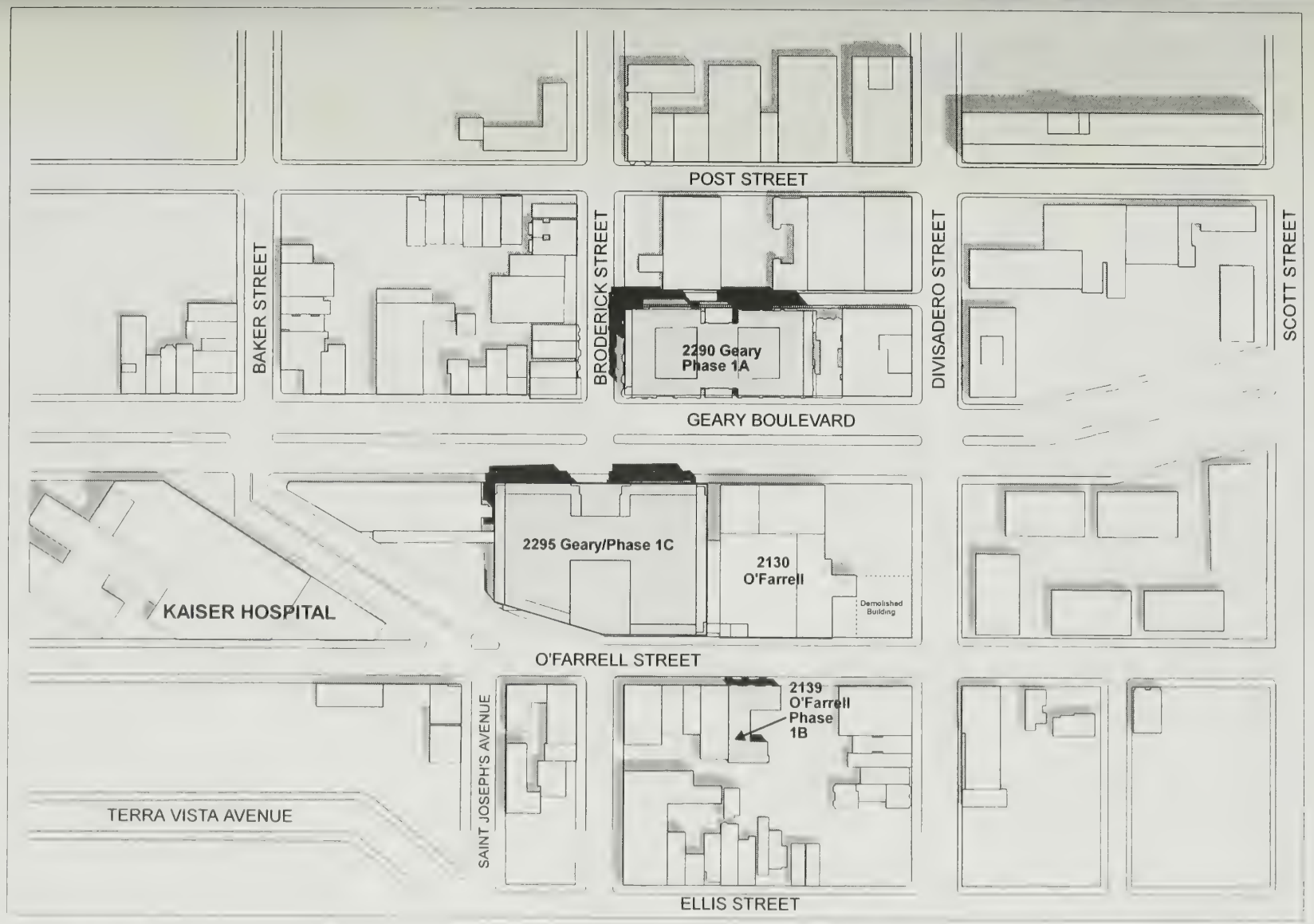
SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.7

Phase 1 - Project Shadow Patterns

June 21 (10:00 a.m.)



June 21 at 12:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

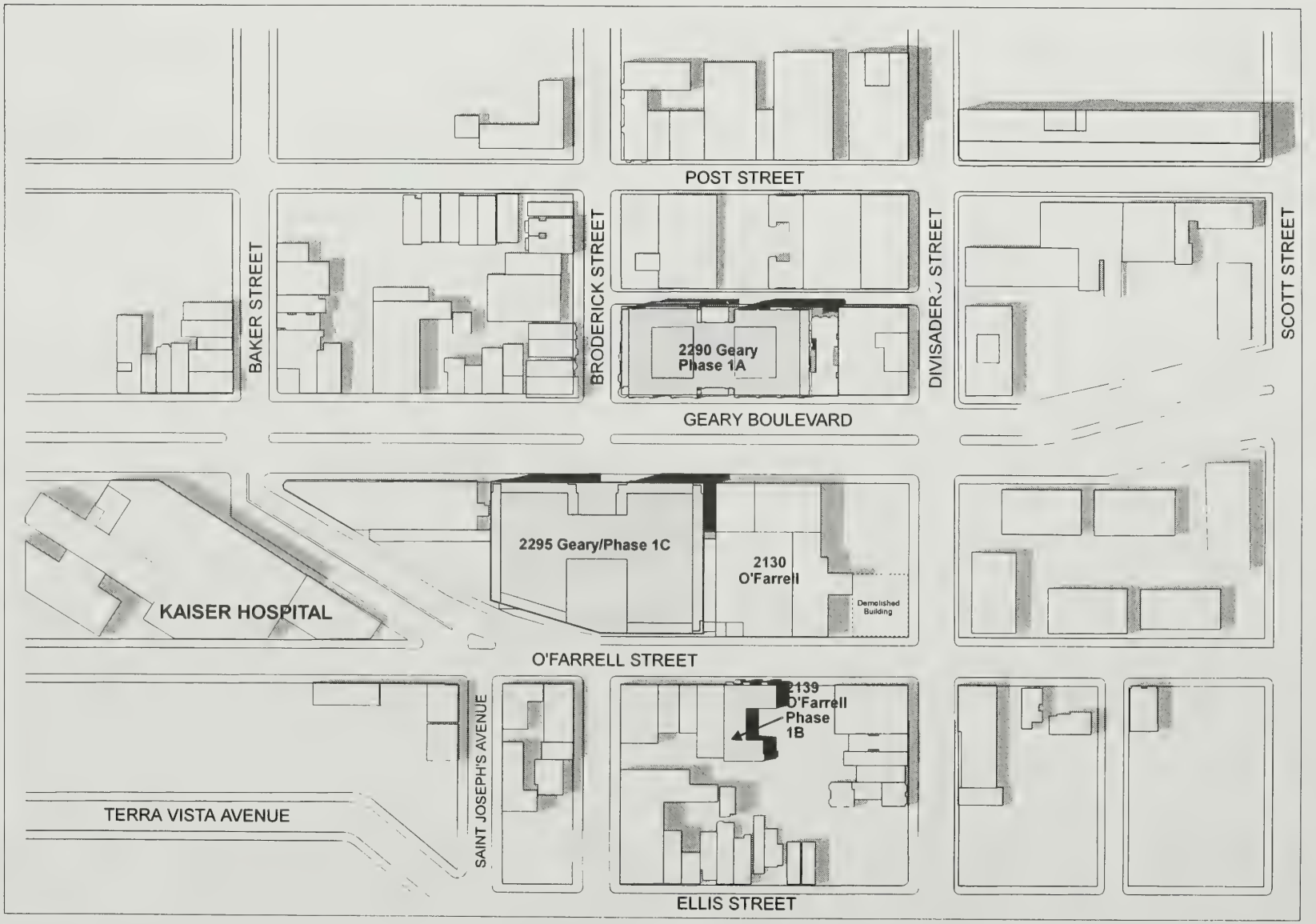
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.8
Phase 1 - Project Shadow Patterns
June 21 (12:00 p.m.)



June 21 at 3:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

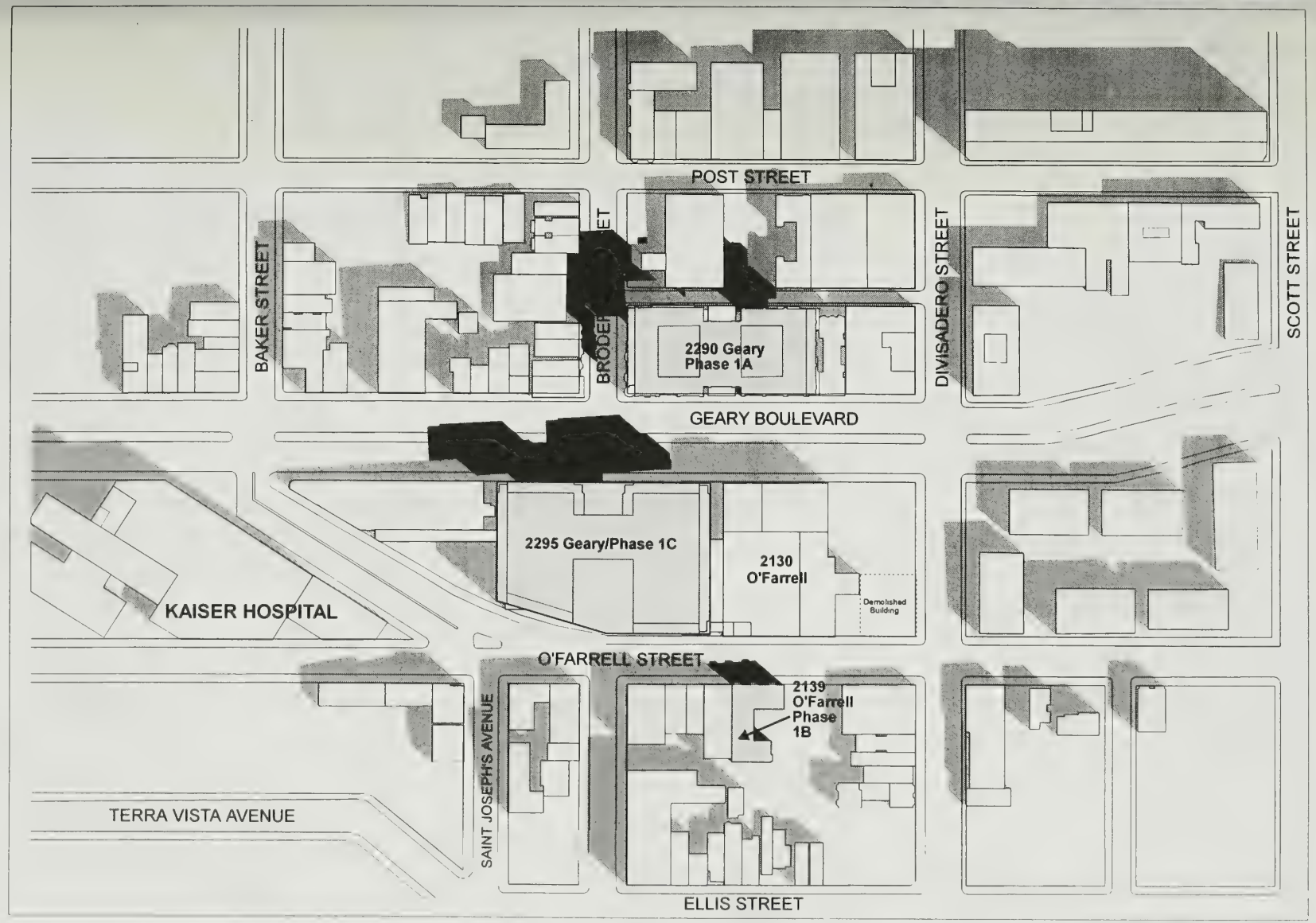
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.9
Phase 1 - Project Shadow Patterns
June 21 (3:00 p.m.)



September 21 at 10:00 a.m. - Phase 1

Net New Shadows

Existing Shadows

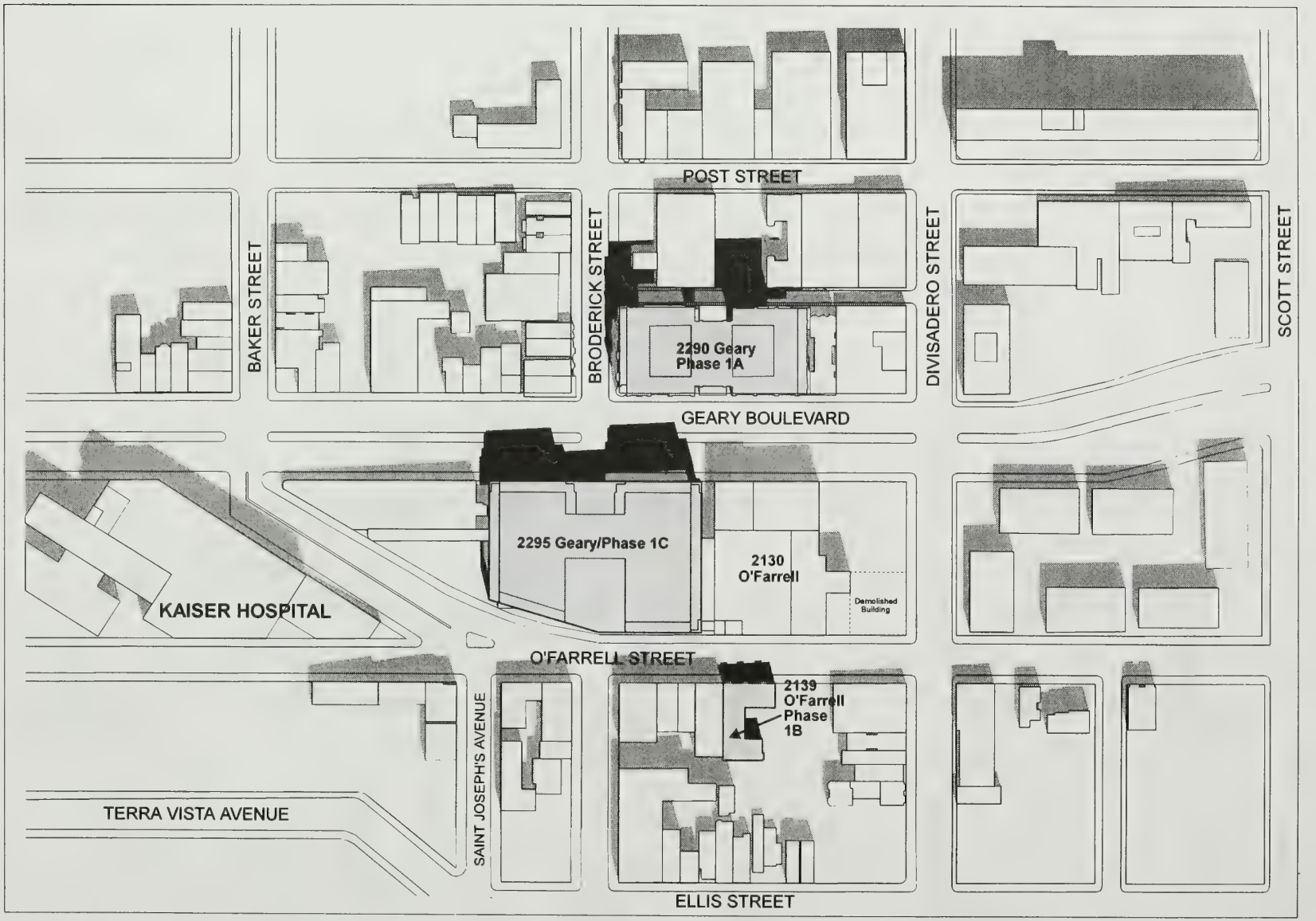
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.10
Phase 1 - Project Shadow Patterns
September 21 (10:00 a.m.)



September 21 at 12:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.11
Phase 1 - Project Shadow Patterns
September 21 (12:00 p.m.)

building would cast about 60 linear feet of new shadow along the north side of the building, reaching almost half-way across O'Farrell Street and covering the south sidewalk area. The Phase 1C/2295 Geary building would shade 300 linear feet on the Geary Boulevard sidewalk and approximately half-way across Geary Boulevard. At 3:00 p.m. (see Figure IV.E.12), the Phase 1A/2290 Geary building would cast about 125 linear feet of new shadow along Garden Street. The Phase 1B/2139 O'Farrell building would cast about 50 feet of new shadows to the east on the O'Farrell Street sidewalk. The Phase 1C/2295 Geary building would shade about 150 linear feet along the south sidewalk area on Geary Boulevard and half-way across Geary Boulevard and half-way across Geary Boulevard.

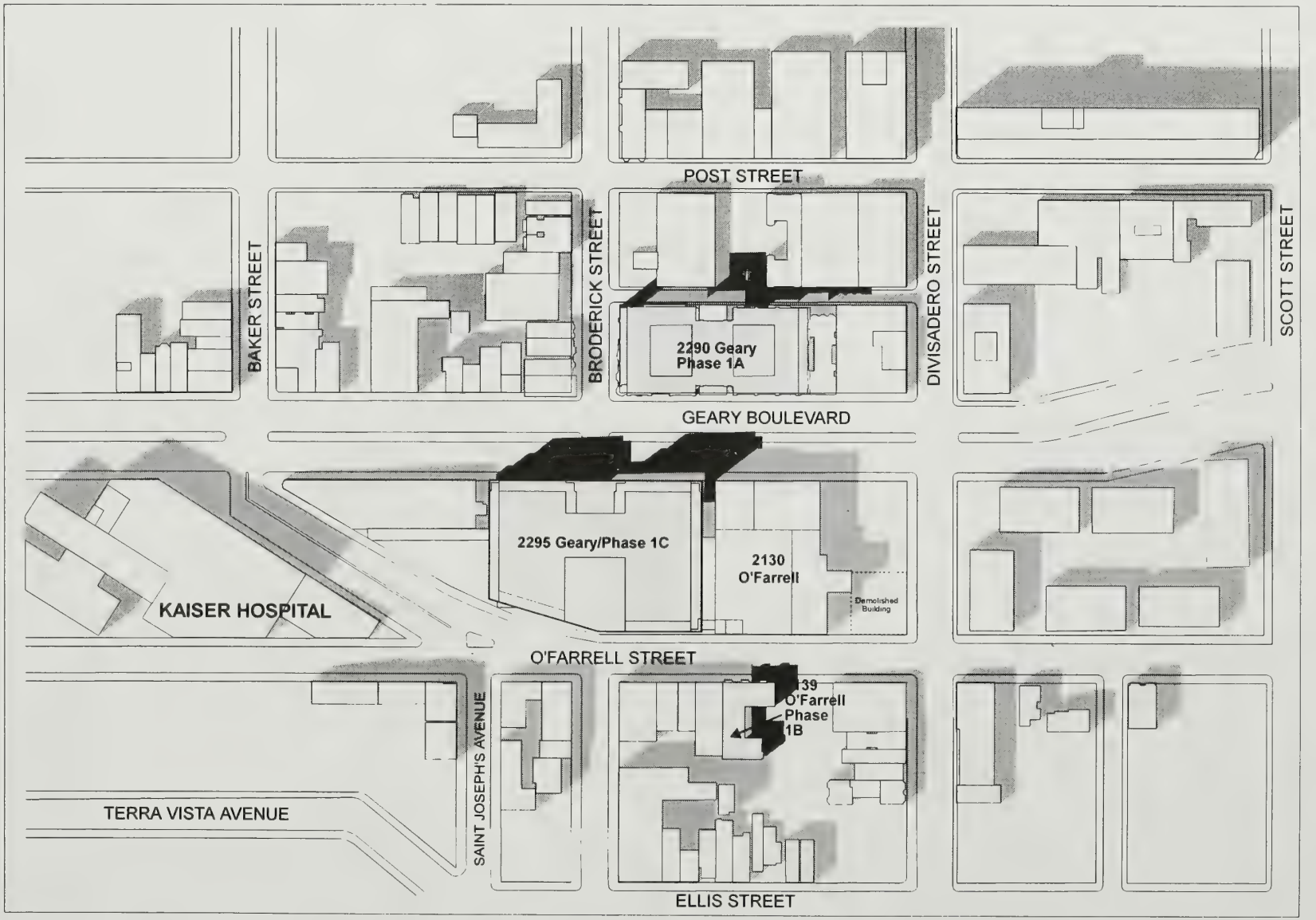
Phase 1 shadows would primarily affect streets and sidewalks adjacent to or near proposed project buildings, primarily the south side of Geary Boulevard, and morning and midday shadows on parts of Broderick Street. Garden Street would be shaded at most times of day by Phase 1A/2290 Geary Boulevard. New shadows would also affect off-street parking areas. Project effects on public open space are discussed below, under "City Planning Code Section 295."

Year 2010

The project under Phase 2 would cast new shadows on the streets and sidewalks in the vicinity of the campus, in addition to shadows cast by existing buildings and structures implemented under Phase 1. New shadows created by Phase 2 of the project are described below.

December 21 (PST)

At 10:00 a.m. on December 21 (see Figure IV.E.13, p. 317), Phase 2A/1455 Divisadero Street would cast about 150 linear feet of new shadow, reaching across Geary Boulevard and covering both the north and south sidewalks. Phase 2B/ New 350 St. Joseph's Avenue would cast about 250 linear feet of new shadow along the north side of Geary Boulevard, shading approximately



September 21 at 3:00 p.m. - Phase 1

Net New Shadows

Existing Shadows

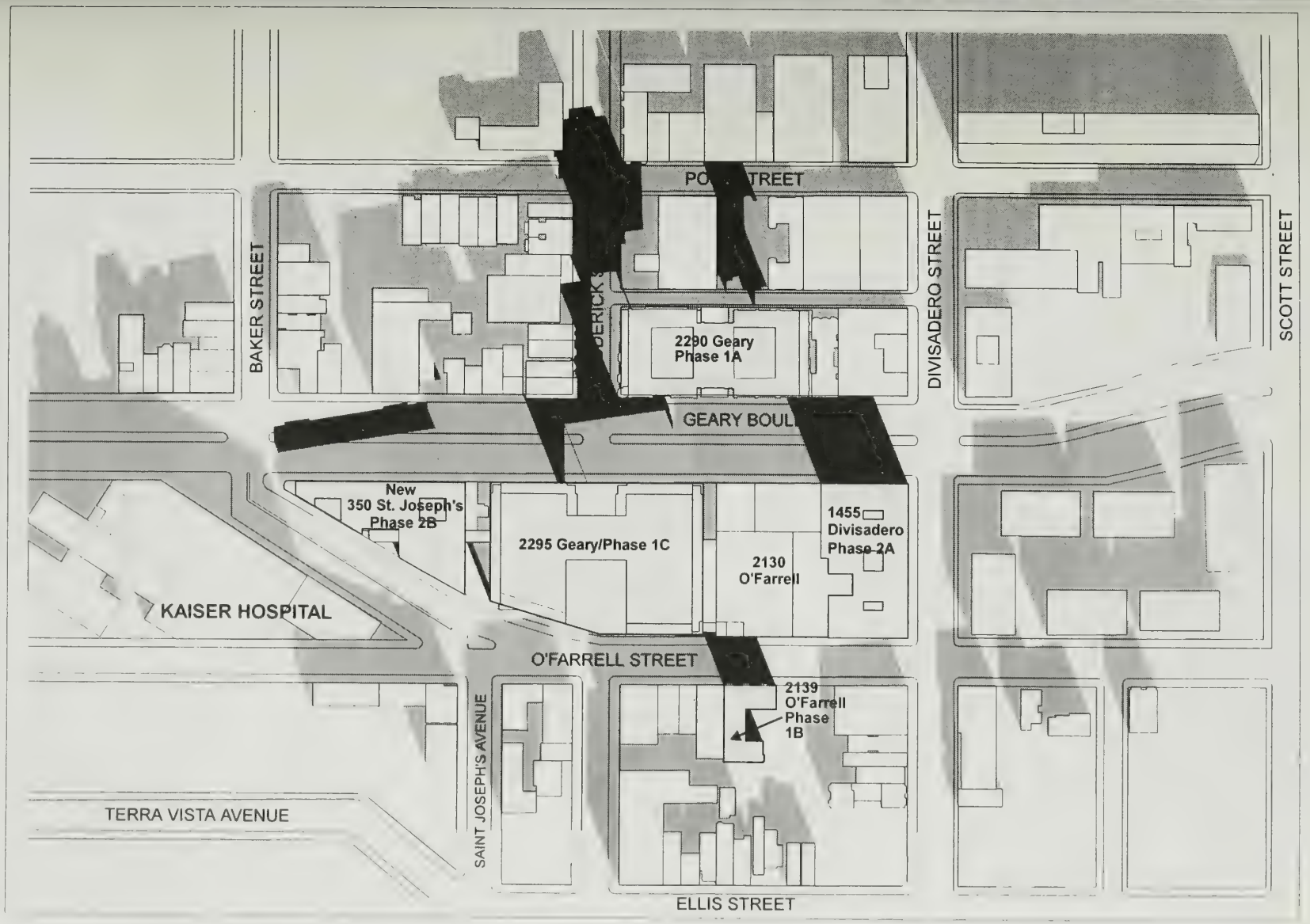
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.12
Phase 1 - Project Shadow Patterns
September 21 (3:00 p.m.)



SOURCE: CADP, Inc.

Figure IV.E.13
Phase 2 - Project Shadow Patterns
December 21 (10:00 a.m.)

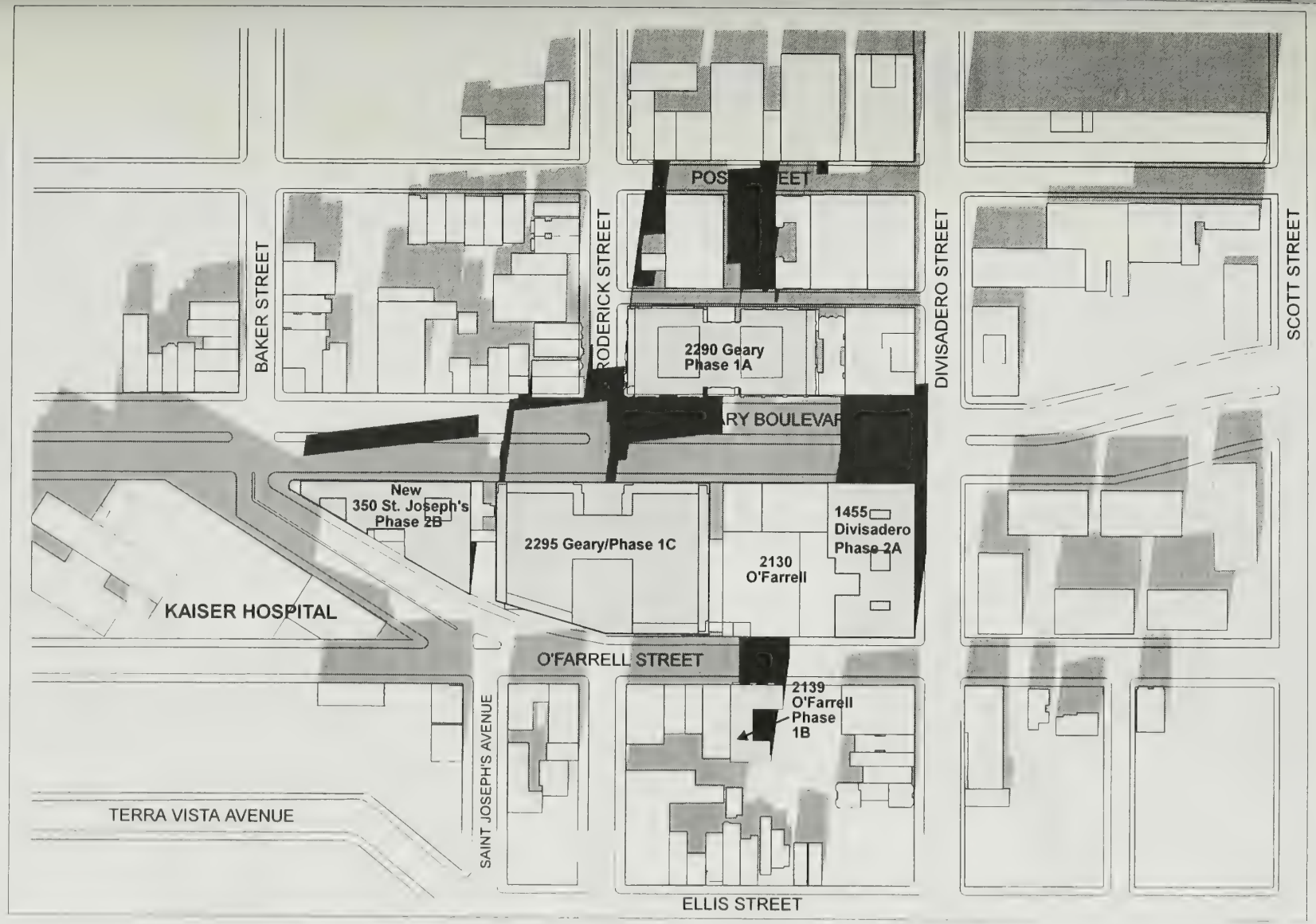
half of the street and the north sidewalk. At 12:00 p.m. (see Figure IV.E.14), Phase 2A/1455 Divisadero Street would cast about 200 linear feet of new shadow along the west sidewalk of Divisadero Street to the north sidewalk of Geary Boulevard. New shadow from Phase 2B/New 350 St. Joseph's Avenue would cover about 350 linear feet of Geary Boulevard. At 3:00 p.m. (see Figure IV.E.15, p. 320), Phase 2A/1455 Divisadero Street would cast new shadow on the east and west sidewalks of Divisadero Street, reaching the north side of Geary Boulevard, and a parking area east of Divisadero. New shadow from Phase 2B/New 350 St. Joseph's Avenue would fill an open entry courtyard on the southeast side of the building, and sidewalks on the north side of Geary Boulevard and the east side of Broderick Street.

March 21 (PST)

At 10:00 a.m. on March 21 (see Figure IV.E.16, p. 321), Phase 2A/1455 Divisadero Street would shade about 100 linear feet on the south sidewalk of Geary Boulevard. Phase 2B/New 350 St. Joseph's Avenue would shade about 300 linear feet on Geary Boulevard. At 12:00 p.m. (see Figure IV.E.17, p. 322), Phase 2A and Phase 2B building shadows would be generally similar to those at 10:00 a.m. At 3:00 p.m. (see Figure IV.E.18, p. 323), Phase 2A/1455 Divisadero Street would cast about 250 linear feet of new shadow along its eastern side, on the sidewalks on both sides of Divisadero Street. The Phase 2B/New 350 St. Joseph's Avenue would cast about 300 linear feet of new shadow along the south side of Geary Boulevard.

June 21 (PDT)

At 10:00 a.m. on June 21 (see Figure IV.E.19, p. 324), Phase 2A/1455 Divisadero Street would cast about 150 linear feet of new shadow, covering the south sidewalk of Geary Boulevard. Phase 2B/New 350 St. Joseph's Avenue would cast a band of new shadow, around the northern and southwestern and the adjacent sidewalk areas. At 12:00 p.m. (see Figure IV.E.20, p. 325), new shadows would be generally similar to those identified at 10:00 a.m. Phase 2A/1455 Divisadero Street would shade about 100 feet of the south sidewalk of Geary Boulevard.



December 21 at 12:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

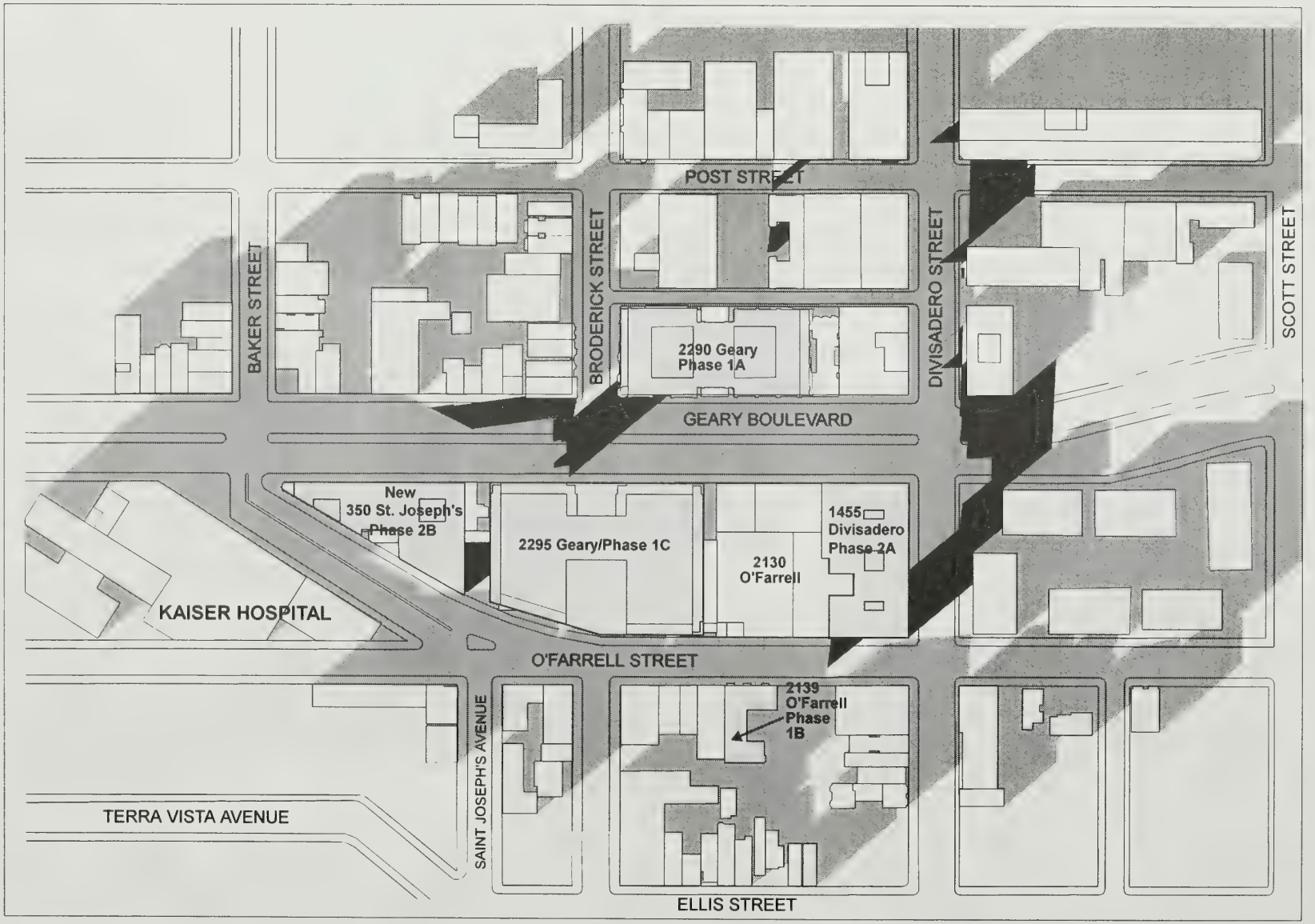
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.14
Phase 2 - Project Shadow Patterns
December 21 (12:00 p.m.)



December 21 at 3:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

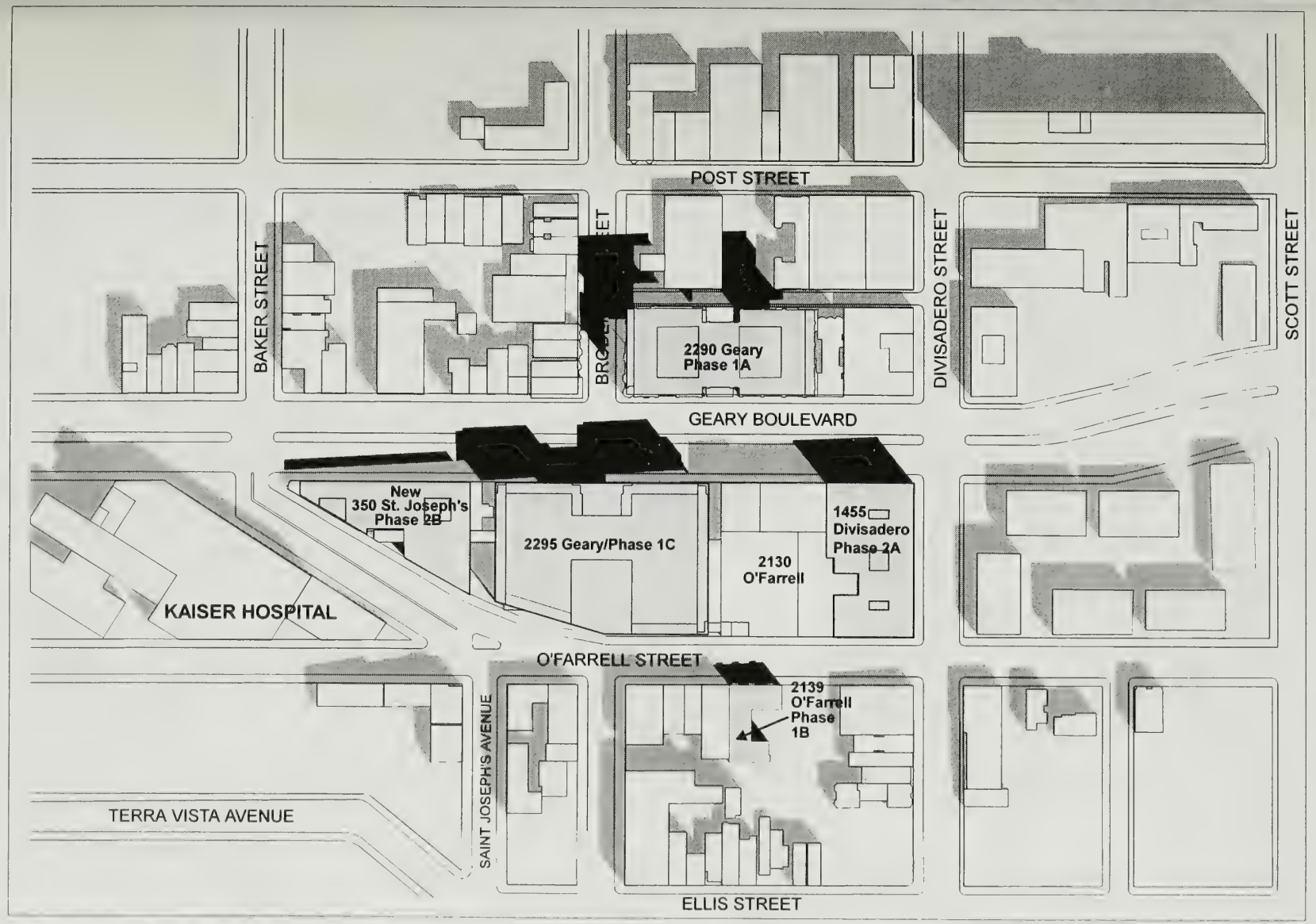
SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.15

Phase 2 - Project Shadow Patterns

December 21 (3:00 p.m.)



March 21 at 10:00 a.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

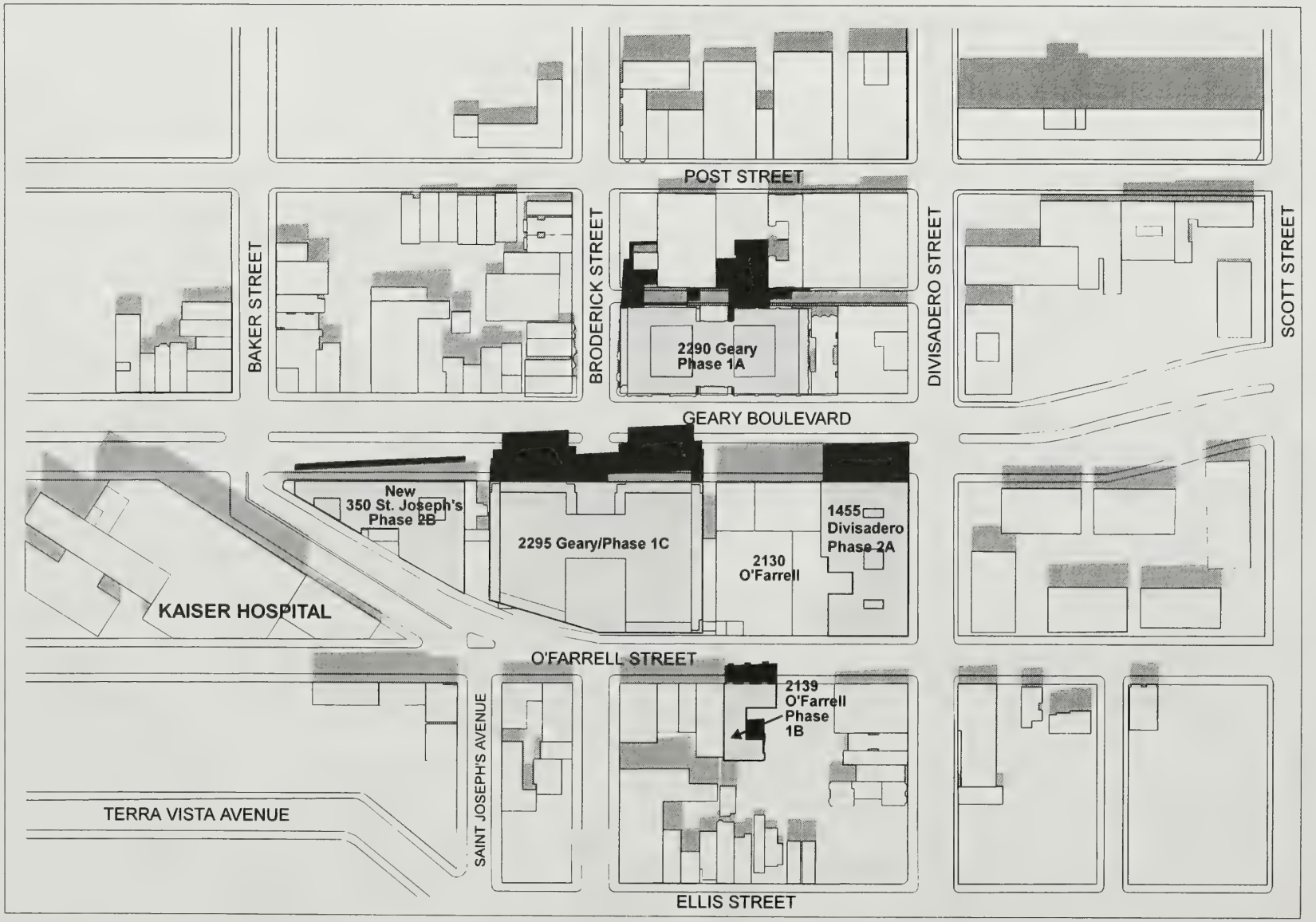
SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.16

Phase 2 - Project Shadow Patterns

March 21 (10:00 a.m.)



March 21 at 12:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

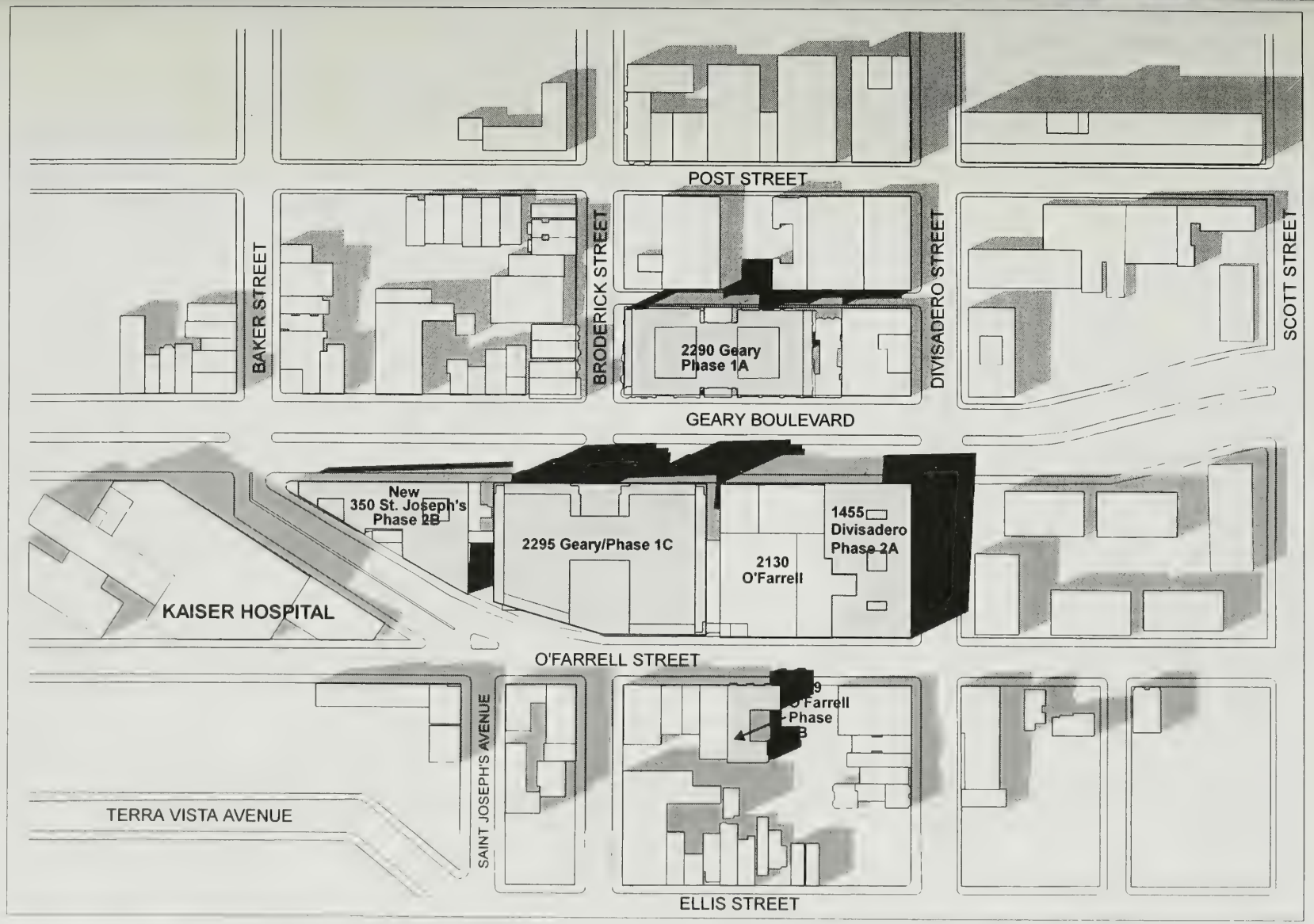
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.17
Phase 2 - Project Shadow Patterns
March 21 (12:00 p.m.)



March 21 at 3:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

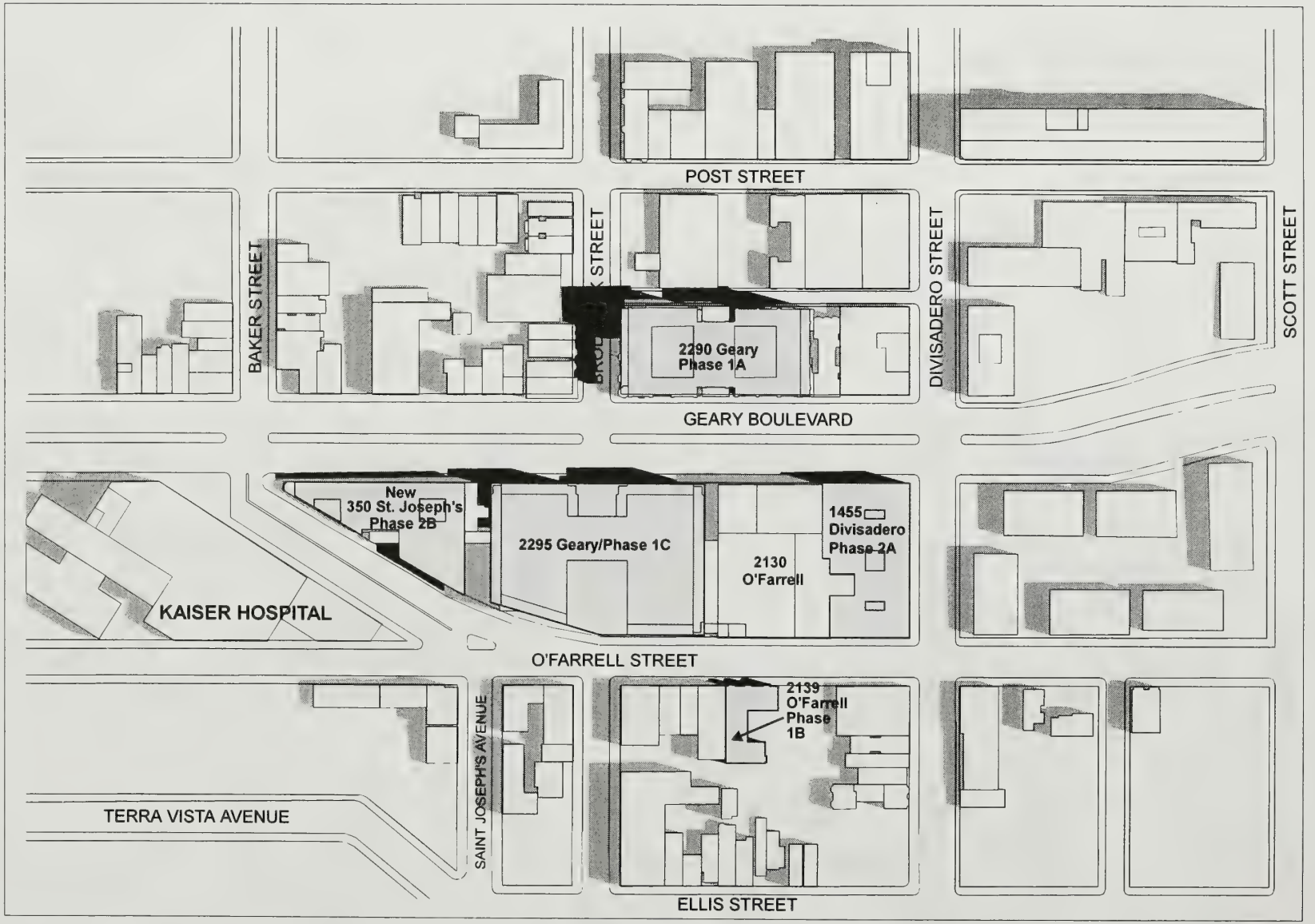
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.18
Phase 2 - Project Shadow Patterns
March 21 (3:00 p.m.)



June 21 at 10:00 a.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

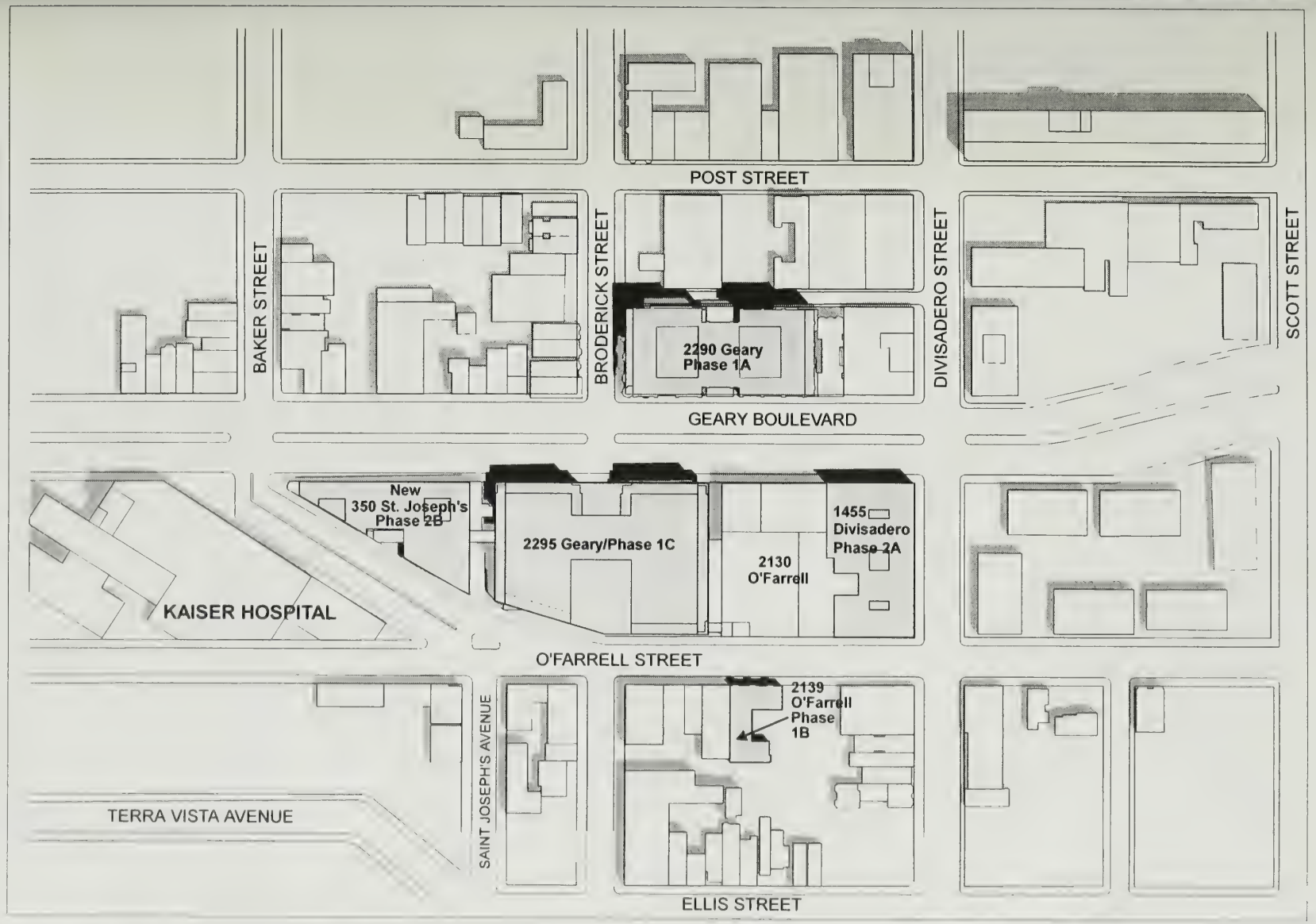
SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.19

Phase 2 - Project Shadow Patterns

June 21 (10:00 a.m.)



June 21 at 12:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO STATE UNIVERSITY 1600 HOLLOWAY AVENUE

Figure IV.E.20
Phase 2 - Project Shadow Patterns
June 21 (12:00 p.m.)

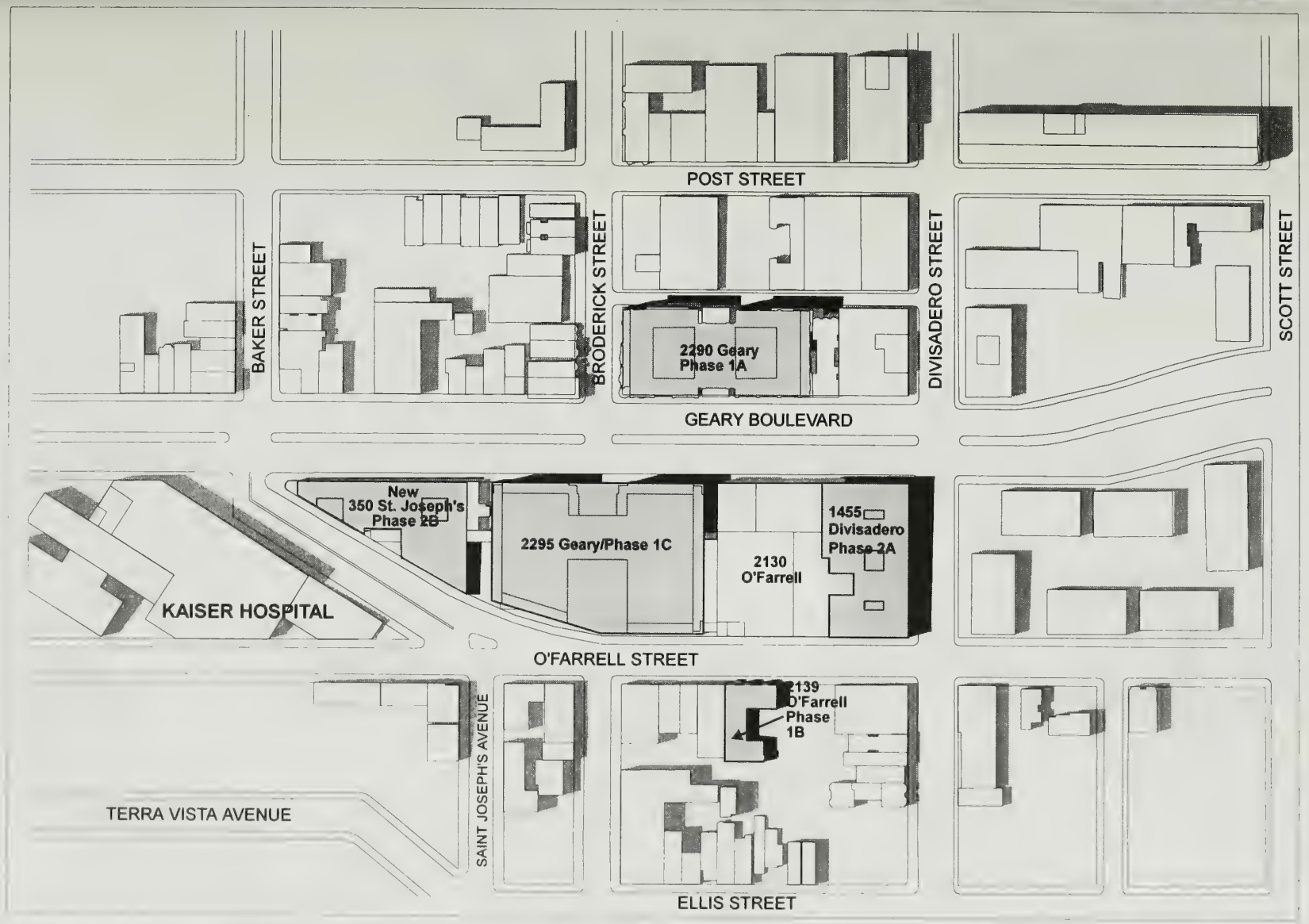
ejp

Phase 2B/New 350 St. Joseph's Avenue would shade about 350 linear feet of sidewalk along Geary Boulevard. At 3:00 p.m. (see Figure IV.E.21), Phase 2A/1455 Divisadero Street would shade about 200 linear feet on the Divisadero Street side of the building, covering the west sidewalk area. Phase 2B/New 350 St. Joseph's Avenue would shade about half of the south sidewalk of Geary Boulevard along its frontage.

September 21 (PDT)

At 10:00 a.m. on September 21 (see Figure IV.E.22, p. 328), Phase 2A/1455 Divisadero Street would cast about 100 linear feet of new shadow on the south sidewalk of Geary Boulevard reaching approximately half-way across Geary Boulevard. Phase 2B/New 350 St. Joseph's Avenue would cast about 250 to 300 linear feet of new shadow along its northern frontage on Geary Boulevard. At 12:00 p.m. (see Figure IV.E.23, p. 329), the areas of new shadow would be similar to those described at 10:00 a.m., with shadows cast to the north along Geary Boulevard by Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue diminishing. At 3:00 p.m. (see Figure IV.E.24, p. 330), Phase 2A/1455 Divisadero Street would cast about 250 linear feet of new shadows on the west sidewalk of Divisadero Street extending most of the way across Divisadero Street, and also about 150 linear feet of new shadow along its north frontage and about half-way across Geary Boulevard. Phase 2B/New 350 St. Joseph's Avenue would cast about 325 linear feet of new shadows along the north side of the building, with the shadows extending into Geary Boulevard.

Phase 2 shadows would primarily affect sidewalks on Geary Boulevard adjacent to proposed project buildings. The 1455 Divisadero building would shade Divisadero Street in afternoons in winter.



June 21 at 3:00 p.m. - Phase 2

Net New Shadows

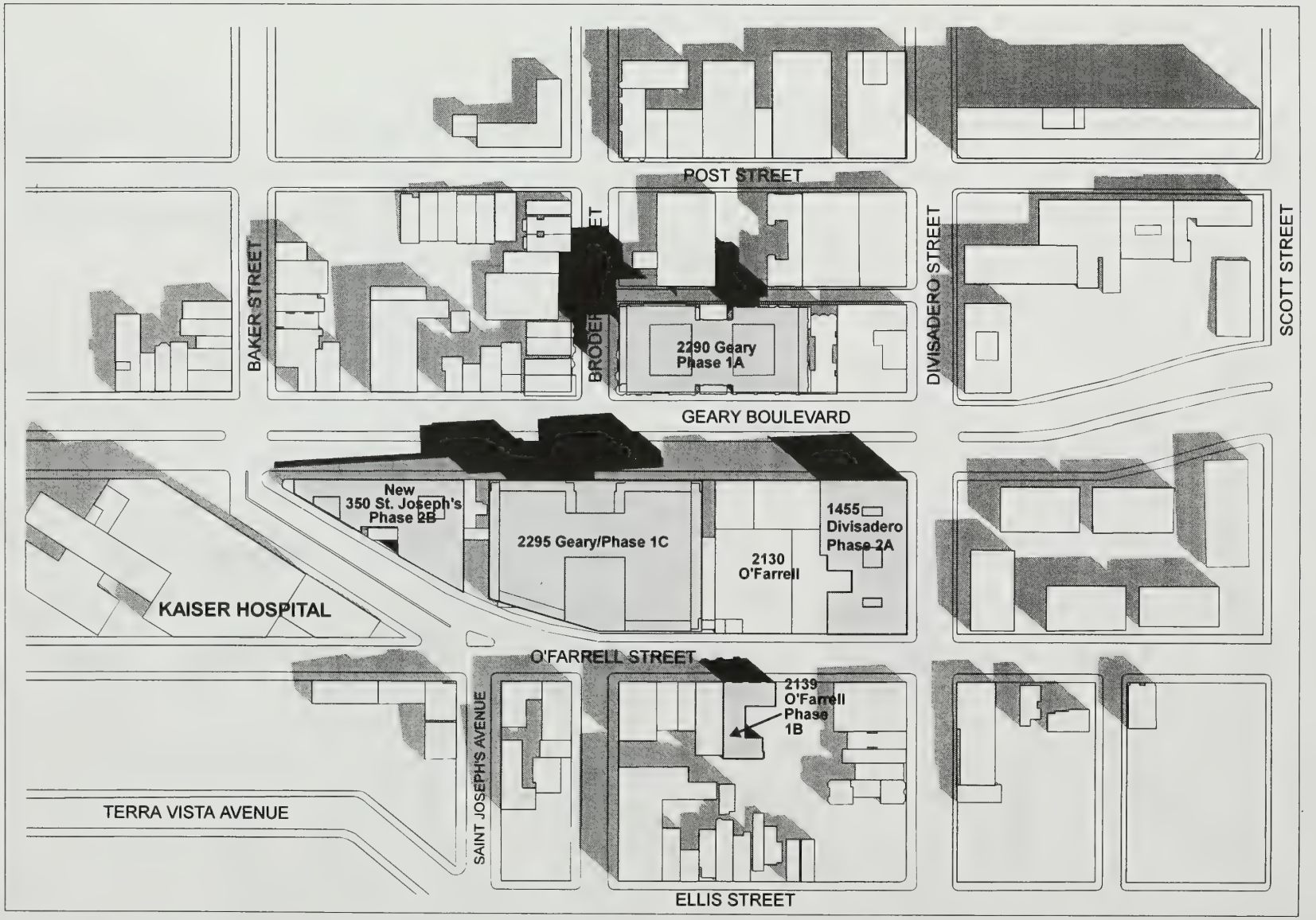
Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

Figure IV.E.21
Phase 2 - Project Shadow Patterns
June 21 (3:00 p.m.)



September 21 at 10:00 a.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

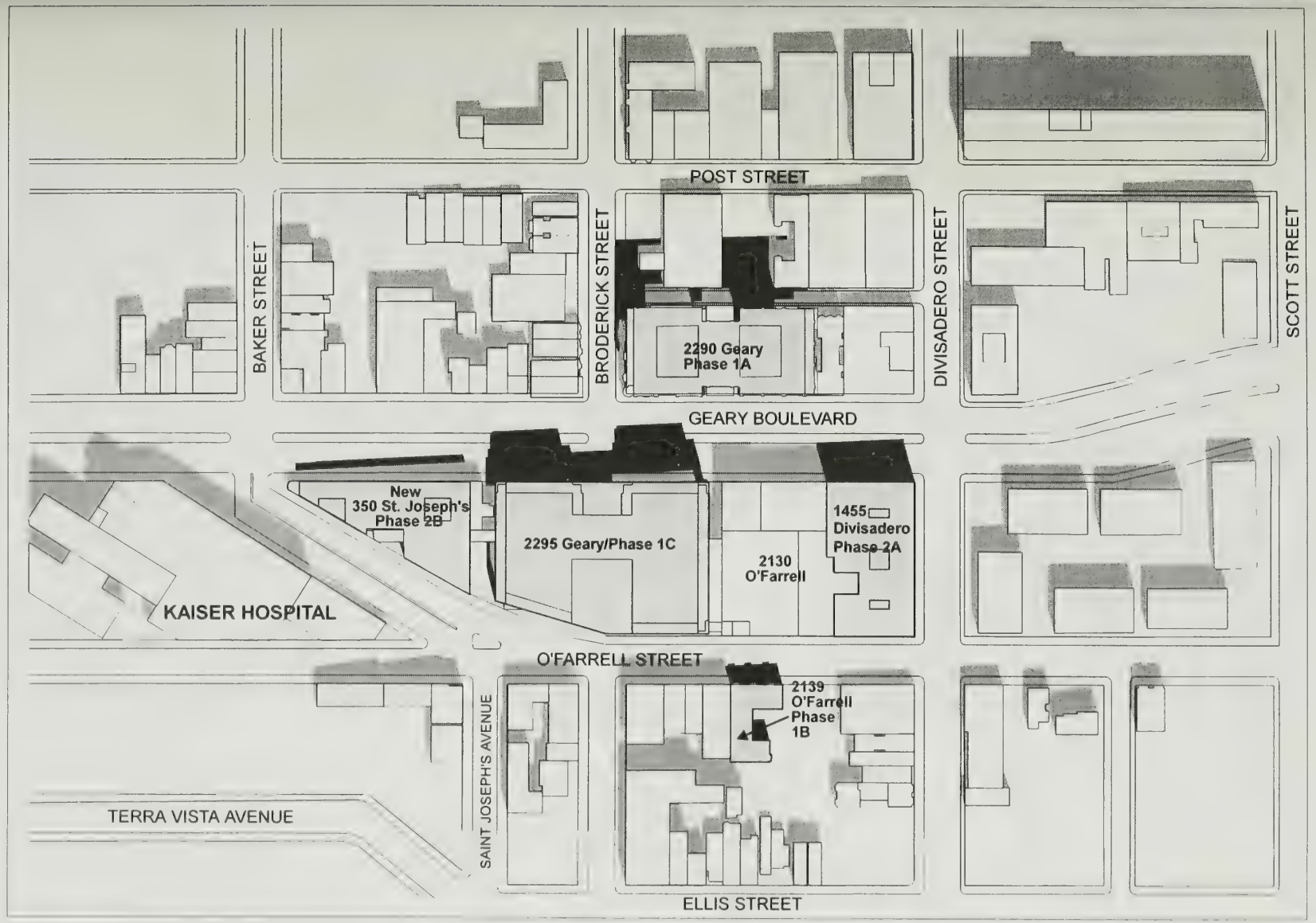
SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.22

Phase 2 - Project Shadow Patterns

September 21 (10:00 a.m.)



September 21 at 12:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

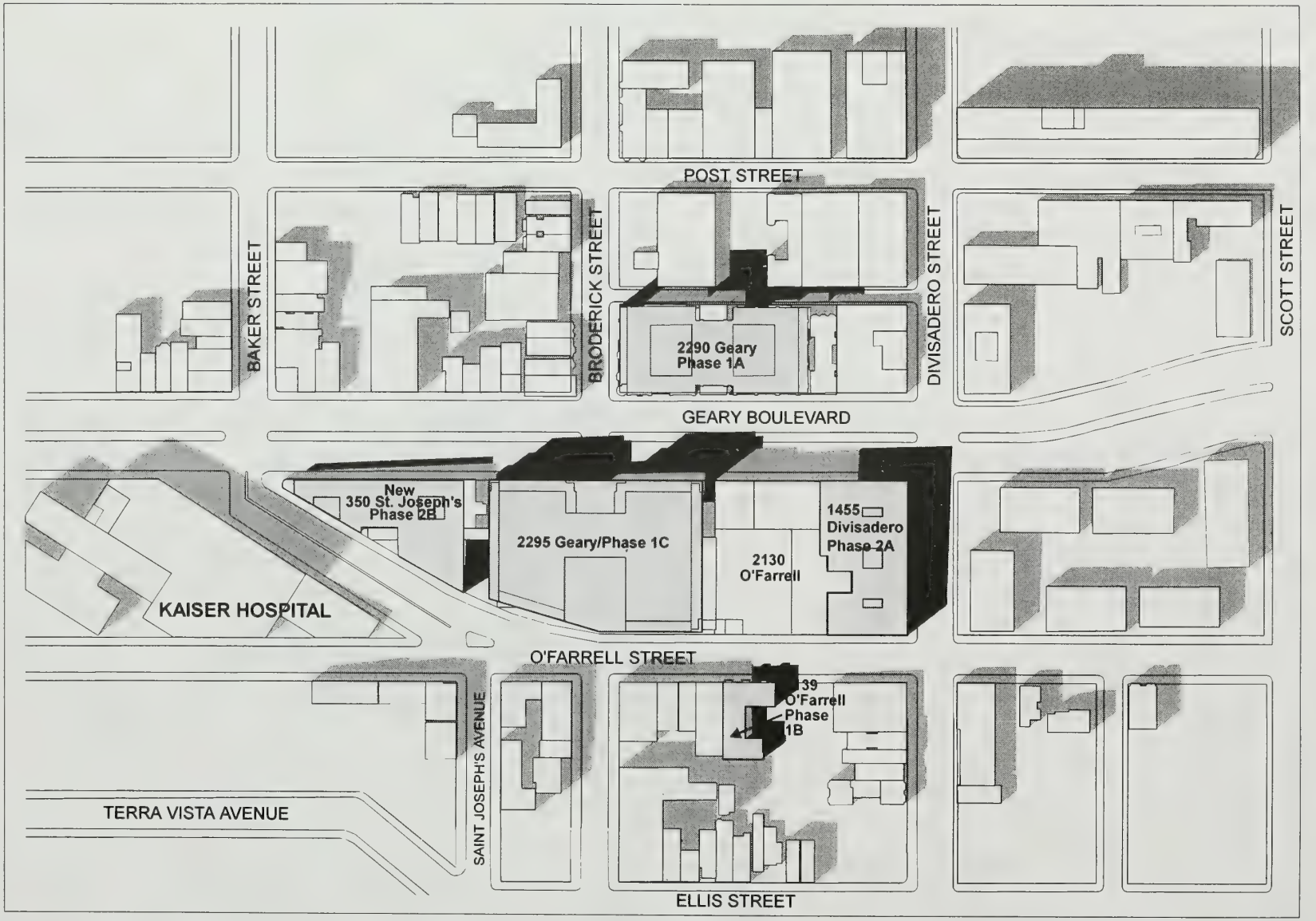
0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.23
Phase 2 - Project Shadow Patterns
September 21 (12:00 p.m.)



September 21 at 3:00 p.m. - Phase 2

Net New Shadows

Existing Shadows

0 250

FEET

SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.24

Phase 2 - Project Shadow Patterns

September 21 (3:00 p.m.)

City Planning Code Section 295

Section 295 of the City Planning Code, adopted in 1984, requires disapproval of any projects over 40 ft. in height that "will have any adverse impact on the use of the property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission because of the shading or shadowing that it will cause, unless it is determined that the impact would be insignificant." The City Planning Commission, in consultation with the General Manager of the Recreation and Park Department and Recreation and Park Commission, is the decision-maker under Section 295. As shown by computer model, Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard would add shadow to a portion of the Western Addition Library and parking lot on Hamilton Recreation Center property under the jurisdiction of the Recreation and Park Department. The City Planning Commission will consider factors such as the location of the shadow, size of the shadow and hour of its occurrence, to support its findings. In February 1989, the City Planning and Recreation and Park Commission's adopted shadow criteria (limits for cumulative new shadow) for 15 parks in the greater downtown area. For 12 of these 15 downtown parks, the adopted guidelines permit zero percent increase in shading, on an annual basis. For three parks, the adopted guidelines permit 0.1 percent to one percent increase in shading, on an annual basis. No specific shadow criteria have been established for Hamilton Recreation Center near the Geary Campus.

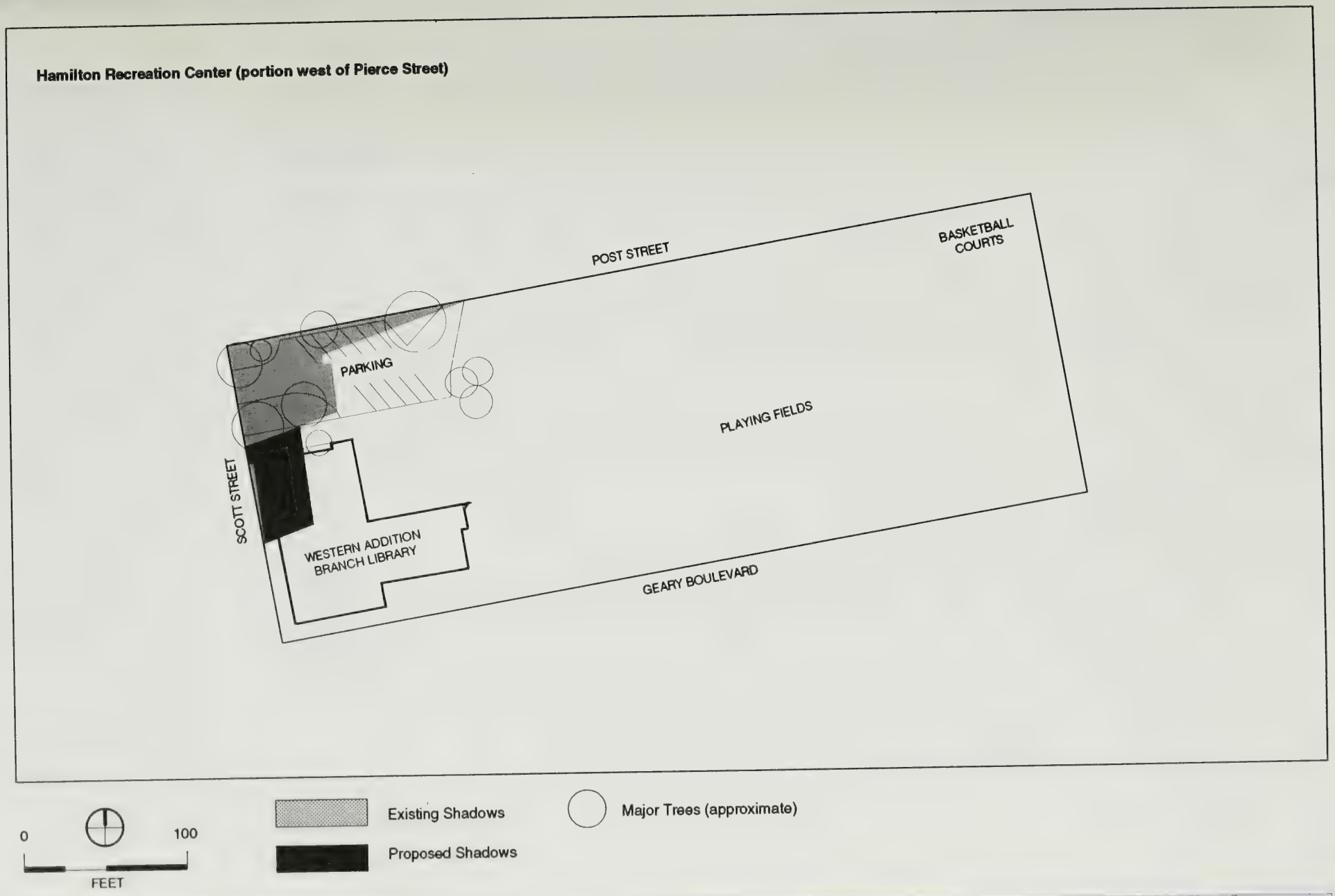
Figures IX.C.1 and IX.C.2, pp. A.27 - A.28, of Appendix C. Shadows, show the maximum extent of project shadows cast on the Western Addition Public Library and parking lot portion of the Hamilton Recreation Center playing fields by the Phase 1A/2290 Geary and Phase 1C/2295 Geary buildings as though cast on the ground without existing intervening buildings. Phase 1A/2290 Geary Boulevard would add new shade to the western end of Hamilton Recreation Center in the late afternoon from about late September to late October, and from about mid-February to earlyMarch, about one hour before sunset. The area affected is the landscaped area west of the Western Addition Branch Public Library building, and the library parking lot north of the building.

Phase 1C/2295 Geary Boulevard would add new shadow to the west side of the Western Addition Public Library and library parking lot of the Hamilton Recreation Center in early November to early February. No new shadow would be cast on the playing fields of Hamilton Recreation Center.

Analysis of the proposed project has determined that new shading from the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings would reach its greatest extent at the western area of the park site during the late fall and winter months. The new shadows would reach the western side of the block along the sidewalk and parking lot areas adjacent to Scott Street, between Geary Boulevard and Post Street near the Western Addition Public Library. The maximum extent of new shadow effects from Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard on the library and parking lot area adjacent to the park playing fields are shown on Figures IV.E.25 and IV.E.26, pp. 333 - 334, and are described below.

Phase 1A/2290 Geary Boulevard

For the Phase 1A/2290 Geary Boulevard, the effects on Hamilton Recreation Center would range from about 790 sq. ft. of new shadow in mid-September at about 6 p.m., to a maximum of about 1,970 sq. ft. of new shadow on October 11 at about 5:37 p.m., when the mechanical penthouse of the proposed Phase 1A/2290 Geary Boulevard building would cast new shadow along the sidewalk near the parking lot and the entrance to the public library on the west side of the park (see Figure IV.E.25). Hamilton Recreation Center encompasses about 175,000 sq. ft. (about four acres) of area, bounded by Scott Street, Geary Boulevard, Steiner Street and Post Street. This would be the maximum occurrence of new shadow on this block from the Phase 1A/2290 Geary Boulevard building. Those effects would occur at similar times from early February to early March. The duration of these new shadows would be about 15 minutes or less, in some cases as little as two minutes; no new shadows would occur 15 minutes before the cited times. New shadows after these times would be later than one hour before sunset and would not

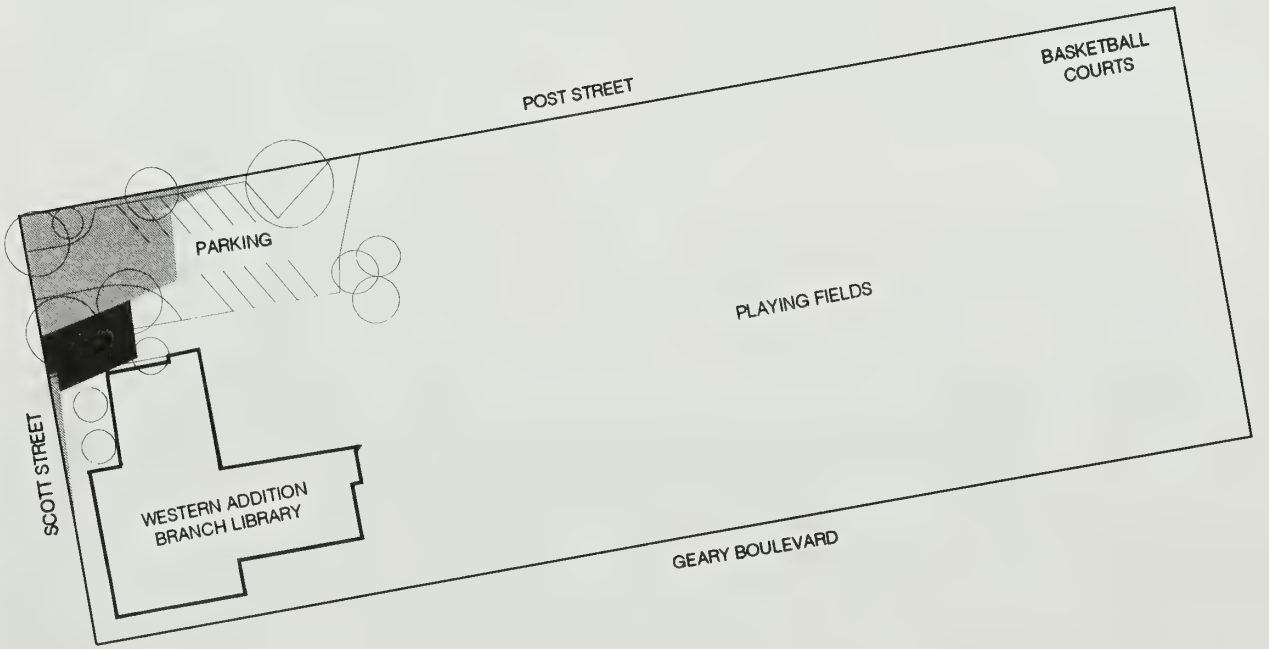


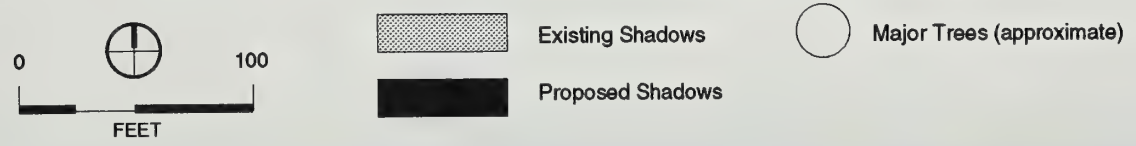
SOURCE: CADP, Inc.

SAN FRANCISCO CAMPUS PROJECT

Figure IV.E.25
Phase 1A /2290 Geary Boulevard
Shadow Pattern Over Hamilton Recreation Center
October 11 at 5:37 p.m.

Hamilton Recreation Center (portion west of Pierce Street)





SOURCE: CADP, Inc.

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.E.26
Phase 1C/2295 Geary Boulevard
Shadow Pattern Over Hamilton Recreation Center
November 22 at 3:54 p.m.

be subject to Section 295. Phase 1A would cast an estimated 1,040 square-foot-hours of new shading per year on Hamilton Recreation Center.[1] This new shade would be along the parking lot and the Western Addition Branch Public Library building near Scott Street. No shadows from Phase 1 of the project would reach the playing fields portion of Hamilton Recreation Center.

Phase 1C/2295 Geary Boulevard

The shading effects of the project would range from about 410 sq. ft. of new shadow in early November at about 4:15 p.m., to a maximum of about 2,300 sq. ft. of new shadow on November 22 at 3:54 p.m. on the sidewalk area near the public library and parking lot area at the 175,000-sq.-ft. area of Hamilton Recreation Center (see Figure IV.E.26, p. 334). This would be the maximum extent of new shadows on the site from the Phase 1C/2295 Geary Boulevard building. Shading in December would range from about 1,800 to 2,100 sq. ft. The duration of the new shadow would be about 15 minutes or less; no new shadow would occur 15 minutes before the cited times. New shadow effects after those times would be later than one hour before sunset, and would not be subject to Section 295. Phase 1C would cast an estimated 1,830 square-foot-hours of new shading per year on Hamilton Recreation Center. This new shade would be along the parking lot and the Western Addition Branch Public Library building near Scott Street.

WIND

Methodology

Wind tunnel tests were conducted on a 1 inch = 50 ft. scale model of the Kaiser Geary Campus project and environs at the UC Berkeley Architecture Department's Boundary Layer Wind Tunnel. Measurements of wind speed were made at 58 pedestrian locations within and around the Geary Boulevard Kaiser facility. Tests were made for three scenarios:

- Existing
- Year 2000
- Year 2010

The wind prediction methodology uses the concept of "equivalent wind speed". Equivalent wind speed denotes the mean hourly wind speed adjusted to account for the expected turbulence intensity or gustiness at the site.

The wind measurements from the wind tunnel were analyzed by a data processing computer program designed to predict the frequency of winds of specified speed using a 5-year historical data base.[2] A complete description of the methodology is provided in Appendix D. Wind, pp. A.29 - A.43.

In accordance with the provisions of Section 148 of the City Planning Code, the wind tunnel test data were used as input to a computer program that calculates the wind current which exceeded 10 percent of the time year-round and the frequency of hourly averaged winds exceeding 26 mph. Neither Section 148 nor Section 249.1 apply to the project because the site is not in downtown San Francisco or Rincon Hill. The Section 148 criteria are used in this study to compare the predicted wind currents for the Geary Campus project to the comfort and hazard criteria.

Year 2000

The wind tunnel tests found existing winds ranging from 3 to 13 mph.[3] Of the 58 measurement points, 11 currently exceed the comfort wind criterion (see Figure IX.D.3, p. A.41, of Appendix D. Wind). None of the 58 measurements points were found to exceed the 26 mph hazard criterion.

The addition of the Phase 1 structures would have a mixed effect, with some locations experiencing higher winds and other locations experiencing lower winds. Thirty-three locations would have higher winds, 12 locations would have lower winds, and 13 locations would have

unchanged winds. Windspeeds with the addition of Phase 1 structures would range from 3 to 14 mph. Seventeen of 58 locations would exceed the San Francisco comfort wind criterion. The areas experiencing increased winds would be Geary Boulevard between Broderick Street and mid-block toward Divisadero Street, O'Farrell Street between St. Joseph's Avenue and Divisadero Street, and Garden Street between Broderick and Divisadero Street. None of the 58 measurement points were found to exceed the 26 mph hazard criterion.

Construction of a pedestrian bridge across Geary Boulevard, a project sponsor proposed variant of this alternative, could result in increased winds directly beneath the overpass. Wind accelerations of 10 percent could occur, but exceedance of the wind hazard criterion would not be expected to occur.[4]

Year 2010

The addition of the Phase 2 structures also would have a mixed effect, with some locations experiencing higher winds and other locations experiencing lower winds. With respect to existing winds, 30 locations would have higher winds, 15 locations would have lower winds, and 13 locations would have unchanged winds. Windspeeds with the addition of Phase 2 structures would range from 4 to 14 mph. Fourteen of 58 locations would exceed the San Francisco comfort wind criterion. The areas experiencing increased winds would be the same as with Phase 1: Geary Boulevard between Broderick and mid-block toward Divisadero; O'Farrell Street between St. Joseph's Avenue and Divisadero; and Garden Street between Broderick and Divisadero. None of the 58 measurements points were found to exceed the 26 mph hazard criterion.

The moderate wind increases predicted with Phase 1 and Phase 2 are largely related to increased channeling of west winds along east-west streets (Garden Street, Geary Boulevard and O'Farrell Street) caused by the increased mass of buildings proposed north and south of Geary Boulevard. Winds along Garden Street are increased by the project, but predicted winds would exceed the comfort criterion by only 1 mph. Although existing winds at some locations along Geary

Boulevard and O'Farrell Street exceed the comfort criterion by 1 to 3 mph and generally would be increased by the project, maximum wind speeds would remain in the range of 1 to 3 mph above the comfort criterion.

NOTES - Shadows and Wind

1. The total square-foot-hours per year is smaller than shadows at given times, because those shadows occuring for two to 15 minutes are averaged over one hour.

2. Arens, Edward A., Donald Ballanti, Charles Bennett, Sandra Guldman, and Bruce White, *Developing the San Francisco Wind Ordinance and Its Guidelines for Compliance*, presented at the ASCE Convention, Boston, 1986.

3. All references to windspeed in this section refer to the calculated wind speed that would be exceeded 10 percent of the time, annually, between the hours of 7 a.m. and 6 p.m., as defined in San Francisco City Planning Code Section 148.

4. Donald Ballanti, Consulting Meteorologist, Memorandum to George Burwasser, EIP Associates, re: Kaiser Geary Campus Alternatives, May 29, 1996.

F. POPULATION, EMPLOYMENT, AND HOUSING

EMPLOYMENT

Table IV.F.1 presents Kaiser's employment projections and the discussion below summarizes the expected changes.

Year 2000

Kaiser Citywide Employment

As a result of implementation of Phase 1 of the project, citywide Kaiser employment would increase 4.3 percent between 1995 and 2000 from a total of 1,922 jobs in 1995 to 2,005 jobs in year 2000. Kaiser's share of San Francisco employment would change from 0.36 percent to 0.35 percent. Kaiser would shift operations and employment to the Geary Campus with the closure of the French Campus and many off-site leases. Leased space that Kaiser would retain is located at 425 Market Street and 601 Van Ness Street. These addresses would house 11 and 27 employees, respectively.

Geary Campus[1]

Phase 1A/2290 Geary Boulevard

Although Phase 1A of the project would displace nine tenants currently occupying the residential units at the Eden Property, the demolition of all the buildings at this site would result in the loss of additional units that once were used as residential units and could be converted back from commercial to residential use. The demolition of these buildings would preclude their future reversion back to residential units.

TABLE IV.F.1: KAISER EMPLOYMENT PROJECTIONS 1995 - 2010
Kaiser San Francisco Medical Center

	Year						Change			
	1995[1]		2000		2010		1995 - 2000		2000 - 2010	
	#	Share	#	Share	#	Share	#	%	#	%
Geary Campus	1,468	76 %	1,967	98 %	2,264	98 %	499	34 %	297	15 %
Hospital	605	31 %	605	30 %	605	26 %	0	0 %	0	0 %
Outpatient Services[2]	863	45 %	1,362	68 %	1,659	72 %	499	58 %	297	22 %
Off-site Leases	194	10 %	38	2 %	38	2 %	(156)	-80 %	0	0 %
French Campus	260	14 %	0	0 %	0	0 %	(260)	-100 %	0	0 %
Total Citywide	**1,922**	**100 %**	**2,005**	**100 %**	**2,302**	**100 %**	**83**	**4 %**	**297**	**15 %**

Notes:
Please refer to Table III.F.1 for employment other than Kaiser.

1. End of first quarter 1995.
2. Year 1995 data includes Kaiser employees on the Eden Property.

Source: EIP Associates, based on information provided by Kaiser Foundation Health Plan, Inc.

In Phase 1A, the existing buildings on the Phase 1A/2290 Geary Boulevard site would be demolished and a new medical outpatient services building would be constructed housing approximately 530 employees relocated from the south side of the existing Geary Campus. Demolition of the buildings on the Eden Property would result in the displacement of the 58 employees presently working at establishments other than Kaiser on that block. This displacement represents about 0.01 percent of the City's 1995 employment. These employees work in 11 establishments that include dental and other office and service uses and two small restaurants.

Displacement of employees on the Phase 1A/2290 Geary Boulevard site could result in job loss in the event the businesses employing these persons are unable to or choose not to relocate. However, it is reasonable to expect that most of the businesses would relocate elsewhere in the City.

Development of Phase 1A/2290 Geary Boulevard would create approximately 150 full-time construction jobs per year. Although the new building to be constructed on the Phase 1A/2290 Geary Boulevard site would absorb existing employees currently located elsewhere on the campus and, therefore, would not result in the direct creation of permanent jobs, it would allow for the construction of new outpatient and administrative space on the south side of the campus. Construction of this additional space in Phase 1C/2295 Geary Boulevard and Phase 2 of the proposed project would create additional permanent employment opportunities.

Phase 1B/2139 O'Farrell Street Replacement Housing

In Phase 1B, the existing 1401-17 Divisadero Street building would be demolished, thereby displacing another seven jobs. The project does not provide replacement commercial space at any of the proposed buildings. 1401-17 Divisadero Street is within the San Francisco Redevelopment Agency's Area A-1 Plan. As such, any business with existing leases at the time of demolition would be entitled to relocation assistance under California State Redevelopment Law as contained in the California State Health and Safety Code, Section 33300 et seq. In brief, the

goal of the relocation assistance is to find a new location of comparable rent and required business characteristics (visibility in a main street location, etc.) so that the establishments do not incur any net loss from the relocation. Any commercial lease that expired prior to the commencement of demolition would not be entitled to relocation assistance. The net employment gain due to implementation of Phase 1 of the project and the new businesses occupying the lease spaces vacated by Kaiser would offset this employment loss.

Phase 1C/2295 Geary Boulevard

Phase 1C would involve the construction of a new medical outpatient services building at 2295 Geary Boulevard that would house approximately 825 employees. Kaiser buildings at 2190 (parking garage) and 2200 O'Farrell Street would be demolished.

By the end of Phase 1 in the year 2000, Kaiser would have relocated all operations and employees at the French Campus (260) and at most off-site leases (156) as well as at 2350 Geary Boulevard (112) to the newly constructed buildings. Additionally, 116 employees at 350 St. Joseph's Avenue would be relocated to the new buildings and 350 St. Joseph's would remain vacant or used as construction management offices until demolition for redevelopment in Phase 2B/New 350 St. Joseph's Avenue.

The net employment change on the Geary Campus property by the end of Phase 1 would be an increase of 499 employees or 58 percent over year 1995. This change would yield a year 2000 Geary Campus total of 1,967 employees (including 605 hospital employees), 98 percent of Kaiser's citywide employment of 2,005 jobs. Hospital employment is assumed to remain constant at its 1995 level of 605 employees, so all of the employment increase would be associated with the outpatient services space of the proposed project.

Construction Employment

In addition to permanent employment, the project would generate temporary construction employment. During the four years of Phase 1, construction employment is projected to average about 150 full-time jobs per year.[2]

Year 2010

Kaiser Citywide Employment

Citywide Kaiser employment is projected to increase 15 percent between 2000 and 2010, adding 297 jobs to the 2,005 jobs in year 2000 for a year 2010 total of 2,302 jobs. Kaiser's share of total City employment would change from about 0.35 percent in year 2000 to about 0.37 percent in 2010. Leases maintained during Phase 2 and beyond would be located at 425 Market Street and 601 Van Ness Avenue housing 11 and 27 employees, respectively.

Geary Campus

Phase 2A/1455 Divisadero Street

Phase 2A/1455 Divisadero Street would house 265 employees. Construction would not displace employees as demolition of 1401-17 Divisadero Street and relocation of residents and businesses would have already occurred in Phase 1B/2139 O'Farrell Street.

Phase 2B/New 350 St. Joseph's Avenue

Phase 2B/New 350 St. Joseph's Avenue demolishes 350 St. Joseph's Avenue that was vacated after completion of and relocation to Phase 1C/2295 Geary Boulevard. Kaiser owned and used this building and this demolition would not displace establishments other than Kaiser operations

and employees who were already relocated in Phase 1C/2295 Geary Boulevard. Additionally, Phase 2B/New 350 St. Joseph's Avenue would construct a replacement building that would house approximately 116 administrative employees.

The net change in employment on the Geary Campus would be an increase of 297 employees or 15 percent. This increase would be from employment growth, since Kaiser would complete consolidation of existing employment at the end of Phase 1. Off-site lease employment would remain steady at 38 employees as would hospital employment at 605 employees.

Construction Employment

During the ten-year period of Phase 2, construction employment would average 47 full-time jobs from year 2000 to 2010.[3]

HOUSING AND POPULATION

Year 2000

Units and Residents

Phase 1A/2290 Geary Boulevard

There are eight units at the 2290 Geary Boulevard site. Phase 1A/2290 Geary Boulevard of the project would include demolition of all of the buildings on the 2290 Geary Boulevard site, including these units.

This site is located in the Geary Boulevard/Divisadero Street Special Use District. The stated purpose of this Special Use District in Section 249.13 of the City Planning Code is to reserve this site for the expansion of needed health services while preserving the integrity of residential

neighborhoods.[4] Within this Special Use District, the demolition of any building containing residential uses and the conversion from residential to non-residential uses above the ground floor are specifically permitted, provided that the notice and relocation assistance provisions of the San Francisco Rent Arbitration and Stabilization Ordinance (Chapter 37 of the San Francisco Administrative Code) are met.[5]

Under Section 249.13, if the City Planning Commission determines during its design review that public benefits to be gained do not outweigh the adverse impacts from the demolition of the residential units, the Commission may require that the applicant pay up to $100,000.00 to mitigate the loss of housing units. This sum, if imposed, must be used for the development of housing affordable to individuals or households with income not exceeding 80 percent of the median income of the San Francisco Standard Metropolitan Areas as defined by HUD.[6]

As summarized in Appendix E. Population, Employment, and Housing, p. A.45, Chapter 37 of the San Francisco Administrative Code permits landlords to recover possession of a rental based upon certain enumerated grounds. These grounds include demolition of a rental unit and permanent removal of rental units from housing use provided certain criteria and requirements are met. This would result in loss of eight existing units and future housing opportunities on site; it would not affect the overall citywide housing supply.

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell Street would demolish 1401-17 Divisadero Street which has 21 residential units, displacing 12 tenants. The 1401-17 Divisadero Street building does not meet today's fire and seismic safety standards. The 1401-17 Divisadero Street property is within San Francisco's Western Addition Redevelopment Area. As such, demolition of housing and displacement of residents would trigger the replacement housing requirement applicable to loss of low-income and affordable housing of California State Redevelopment Law as contained in the California State Health and Safety Code, Section 33300 et. seq. Kaiser would demolish their existing office structure at 2139 O'Farrell Street and construct a 21-unit apartment building on

that site prior to demolition of the 1401-17 Divisadero building. The replacement housing would consist of nine studios, nine one-bedroom units, and three two-bedroom units. The existing tenants would be offered first right-of-refusal to rent the new units at the same rent, which will be fixed for three years. The construction of the 21-unit apartment building at 2139 O'Farrell Street would meet the requirements of State Redevelopment Law by replacing all existing units at 1401-17 Divisadero Street.

Housing Demand

The increase in the number of Kaiser employees in San Francisco in Phase 1 would be expected to increase the demand for housing in the City and the larger regional housing market, of which it is a part. Section 313 of the City Planning Code establishes the requirements of the Office of Affordable Housing Production Program (OAHPP). Section 249.13(3) (Proposition K) exempts outpatient facilities on the Eden Property from OAHPP. The Zoning Administrator for the City and County of San Francisco has determined that the requirements of Section 313 of the City Planning Code do not apply to the Kaiser Geary Campus project for reasons set forth in his letter dated November 12, 1996 (see Appendix E. Population, Employment and Housing, pp. A.48 - A.49).[7] The buildings constructed during Phase 1 of the proposed project would house outpatient medical uses and associated employment. OAHPP also does not apply to property under the jurisdiction of the San Francisco Redevelopment Agency pursuant to Section 313.3 (2)(D) of the City Planning Code.

Even though OAHPP would not apply, the increase in the demand for housing from Kaiser's net increase of about 80 new employees citywide can be approximated using the general OAHPP methodology. Since it is unlikely that many of the 80 new employees would live together in one household, a conservative assumption is that each new employee would represent one new household needing housing. Since these new employees would be of the same type and range as existing employees, their residential location preferences on average would be expected to roughly mirror those of Kaiser employees in 1995. As discussed in III.F. Population, Employment, and Housing, approximately 54 percent of Kaiser's current employees live in San

Francisco. Applying the same percentage to the new employees, it is reasonable to expect roughly 45 (rounded) of the 80 new employee households would live in San Francisco. Using OAHPP methodology approximately 45 percent of these new employee-residents would reside in new households.[8] The balance would come from increased labor force participation.[9] Thus, 20 new employees would reside in new San Francisco households. Of these 20 new employees residing in new households, they would create a demand for 15 new housing units based on an employed resident per household factor of 1.35.[10] Table IX.E.1, p. A.46, of Appendix E indicates that 6,300 new households and corresponding occupied housing units may be added to the City between 1995 and 2000. The 15 new Kaiser employee households in new housing would represent 0.2 percent of the projected increase in households and would be a 0.0005 percent increase over 1995 households (311,430).

Year 2010

Units and Residents

No additional housing would be demolished or constructed after the year 2000; therefore Phase 2 of the proposed project would not displace or increase residential population in the project area.

Housing Demand

The increase in Kaiser employment in San Francisco in Phase 2 would be expected to increase the demand for housing within San Francisco and the larger market.

Phase 2A/1455 Divisadero Street would house outpatient medical uses and associated employment. OAHPP requirements would not apply to property under the jurisdiction of the San Francisco Redevelopment Agency.

Phase 2B/New 350 St. Joseph's Avenue would increase administrative space from 31,340 sq. ft. to 97,000 sq. ft., a net change of 65,660 sq. ft. As noted on the preceding page, OAHPP requirements do not apply to the project.

The proposed project would not displace employment but would increase Kaiser employment within San Francisco by approximately 300 employees in Phase 2. OAHPP requirements would not apply, but the increase in housing demand can be approximated for Phase 2 as it was for Phase 1, using the general OAHPP methodology. Based on the same steps followed above for Phase 1 housing demand, the new employees who would reside in San Francisco would create a demand for about 54 new units. Table IX.E.1, p. A.46, of Appendix E indicates that 15,470 new households would demand housing in the City between 2000 and 2010. The project's 54 new households requiring new housing would constitute a 0.3 percent share of this projected citywide increase in households, while Kaiser employees' demand for new housing would represent an increase of 0.02 percent over 1995 household levels (311,430).

NOTES - Population, Employment, and Housing

1. Employment information for buildings is from the *Draft Data Book*, January 24, 1996, prepared by EIP Associates using data supplied by Kaiser Foundation Health Plan, Inc.

2. Michael Sheats, Senior Project Manager, Kaiser Permanente, memorandum, August 10, 1995.

3. Michael Sheats, Senior Project Manager, Kaiser Permanente, memorandum, August 10, 1995. The estimate is for 85 jobs from September 1998 to March 2005, a period of 67 months. These 85 jobs per day each month for 67 months (5.5 years) average out to 47 jobs each year over a ten-year period (5.5-year period / ten-year period * 85 jobs each year over the 5.5-year period = 46.75 jobs each year over the ten-year period).

4. City Planning Code, Section 249.13 (b), Geary Boulevard/Divisadero Street Special Use District, November 1993.

5. As summarized in Appendix E, p. A.45, Chapter 37 authorizes landlords to recover possession of rental units based upon certain enumerated grounds. These grounds include demolition of a rental unit and permanent removal of rental units from housing use, provided certain criteria and requirements are met.

6. City Planning Code, Section 249.13 (b), Geary Boulevard/Divisadero Street Special Use District, November 1993.

7. Letter dated November 12, 1996, from Robert Passmore, City Zoning Administrator, to Alice Suet Yee Barkley, Esq. The complete text of this letter giving the Zoning Administrator's reasons for the determination is in Appendix E., pp. A.48 - A.49.

8. Recht Hausrath and Associates, *Summary of the Economic Basis for an Office-Housing Production Program*, prepared for the San Francisco Department of City Planning, July 19, 1984, p. 10.

9. Recht Hausrath and Associates, *Summary of the Economic Basis for an Office-Housing Production Program*, prepared for the San Francisco Department of City Planning, July 19, 1984, p. 10.

10. Recht Hausrath and Associates, *Summary of the Economic Basis for an Office-Housing Production Program*, prepared for the San Francisco Department of City Planning, July 19, 1984, p. 11.

G. TRANSPORTATION AND CIRCULATION

TRAVEL DEMAND

Project travel demand refers to net new traffic generated by the Kaiser Geary Campus Project, which is the difference between traffic generated by existing land uses and traffic generated by the proposed uses. Appendix F. Transportation and Circulation, pp. A.58 - A.81, contains a detailed discussion of the methodology and assumptions used to estimate project travel demand.[1]

On-site person-trip counts and questionnaire surveys were conducted as part of the transportation analysis to provide trip generation, trip distribution, and modal split characteristics of the proposed Kaiser uses. The surveys were conducted at two existing Kaiser outpatient services buildings at the Geary Campus, 350 St. Joseph's Avenue and 2200 O'Farrell Street, on August 10, 1995. The results of the person-trip count survey were used to derive a person-trip generation rate for the proposed uses. Person-trip generation rates for the existing non-Kaiser- related land uses were based on the *Guidelines for Environmental Review: Transportation Impacts*.[2] Person-trips generated by the existing non-Kaiser-related uses to be demolished were subtracted from the total new person-trips generated by the new Kaiser uses to be constructed to obtain the net new person-trips for the project.

By the Year 2000, Phase 1 would generate a net addition of approximately 5,920 average daily person-trips and 570 PM peak-hour person-trips. By the Year 2010, buildout of Phase 2 would generate a net addition of approximately 10,760 average daily person-trips and 980 PM peak-hour person-trips over existing conditions. This accounts for trip-making characteristics of additional employees, visitors, and patients. The analysis assumes that trips by patients and visitors would increase at the same rate as employment increases on the Geary Campus. Table IX.F.5, pp. A.66 - A.67, of Appendix F provides a summary of the person-trip generation for the phases of the project.

Mode split characteristics for the proposed Kaiser uses were obtained from the on-site questionnaire surveys conducted at the existing Geary Campus. Mode split describes the mode

of transportation used by the employees, patients, and visitors to the project site. Approximately 78 percent of all employees, patients, and visitors drive to/from the Kaiser uses, approximately 16 percent use public transit, less than 4 percent walk, and less than 3 percent use other modes, such as motorcycle or bicycle. Mode split information for the non-Kaiser commercial/retail, office, and residential uses that would be demolished was provided by the Department of City Planning, as well as from 1990 Journey-to-Work Census data.

Similar to the person-trip generation, vehicle-trips generated by the existing uses were subtracted from the total new vehicle-trips generated by the proposed project to obtain the net new vehicle-trips for the proposed project. By the Year 2000, Phase 1 would generate a net addition of approximately 3,620 average daily vehicle-trips and 330 PM peak hour vehicle-trips. By the Year 2010, Phase 1 and Phase 2 would generate a total net addition of approximately 6,200 average daily vehicle-trips and 550 PM peak hour vehicle-trips over existing conditions. Table IX.F.8, pp. A.72 - A.73 of Appendix F summarizes the vehicle-trip generation for the phases of the project.

Approximately 87 percent of all vehicle-trips destined for the Geary Campus travel from within San Francisco, and the remaining 13 percent travel from outside of San Francisco (i.e., the East Bay, North Bay, or South Bay). In addition, approximately 31 percent of all these trips originate from within the area generally bounded by Van Ness Avenue, the southern boundary of Golden Gate Park, the San Francisco Bay, and the Pacific Ocean.[3] Figure IX.F.1, p. A.69, and Figure IX.F.2, p. A.70, of Appendix F illustrate the trip distribution patterns for vehicles entering and exiting the project site, respectively.

TRAFFIC

Traffic impacts of the proposed project were assessed for the seven study intersections (Figure III.G.1, p. 170) and two arterial segments (Geary Boulevard, between Collins Street and Divisadero Street, and Divisadero Street, between Sutter Street and Turk Street), in the vicinity of the project site. The analysis considers five scenarios (Existing, Existing Plus Phase 1, Year

2000 Cumulative, Existing Plus buildout of Phase 2, and Year 2010 Cumulative) during the weekday PM peak-hour conditions.

The Existing scenario is defined as Year 1995 traffic conditions without the project; the Existing Plus Phase 1 scenario is defined as Year 1995 traffic conditions with Kaiser Phase 1; the Year 2000 Cumulative scenario is defined as future traffic conditions which includes background traffic growth to Year 2000, the University of California San Francisco (UCSF)/Mount Zion expansion project,[4] and Kaiser Phase 1; the Existing Plus buildout of Phase 2 scenario is defined as Year 1995 traffic conditions with Kaiser Phase 1 and Phase 2; and the Year 2010 Cumulative scenario is defined as future traffic conditions which includes background traffic growth to Year 2010, the UCSF/Mount Zion project, and Kaiser Phase 1 and Phase 2. The results of the intersection analyses are summarized in Table IV.G.1 and the results of the arterial analyses are summarized in Table IV.G.2, p. 354.

As defined by the City and County of San Francisco, the operational impact on signalized intersections is considered unacceptable when project traffic causes the Level of Service to deteriorate below LOS D (i.e., to LOS E or LOS F).

Geary Boulevard and Divisadero Street are San Francisco Congestion Management Program (CMP)-designated roadways. The San Francisco CMP sets LOS E as an acceptable standard on designated CMP roadways. If the addition of project traffic causes the service level on CMP-designated arterials to drop below the CMP standard of LOS E (i.e., to LOS F), the CMA would consider this as non-conformance with the San Francisco CMP.

Year 2000

Year 2000 Cumulative traffic analyses were conducted in order to assess traffic impacts associated with local cumulative development. For the Year 2000 Cumulative conditions, future traffic volumes were obtained by applying a 0.5 percent compound annual growth rate (or 2.53 percent over five years) to the existing background traffic, adding traffic generated by the

TABLE IV.G.1: INTERSECTION LEVEL OF SERVICE - WEEKDAY PM PEAK HOUR

			Existing		Existing + Phase 1		2000 Cumulative		Existing + Phase 1 and Phase 2		2010 Cumulative	
No.	Intersection	Control Type	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1	Geary Boulevard & St. Joseph's Avenue[1]	Signal	6.3	B	6.7	B	6.9	B	7.1	B	7.5	B
2	Geary Boulevard & Broderick Street	Two-Way STOP[2]	0.1	B	0.7	B	0.7	B	1.0	B	1.0	B
3	Geary Boulevard & Divisadero Street	Signal	14.6	B	14.6	B	17.5	C	16.0	C	25.1	D
4	O'Farrell Street & St. Joseph's Avenue	All-Way STOP	6.3	B	8.7	B	9.2	B	11.9	C	13.8	C
5	O'Farrell Street & Divisadero Street	Signal	12.2	B	12.7	B	13.4	B	14.8	B	18.5	C
6	Post Street & Baker Street	Signal	7.4	B	7.4	B	7.4	B	7.5	B	7.6	B
7	Post Street & Divisadero Street	Signal	7.2	B	7.2	B	7.3	B	7.2	B	7.7	B

Notes:

1. Subsequent to completing the transportation study, the northbound approach at this intersection was restriped to provide an exclusive left turn lane (May 1996). The delay and LOS presented in this table reflect the new configuration.
2. The delay presented for a Two-Way STOP controlled intersection is the overall intersection delay, while the LOS presented corresponds to the intersection movement which experiences the worst LOS.

Source: Korve Engineering, Inc.

TABLE IV.G.2: ARTERIAL LEVEL OF SERVICE - WEEKDAY PM PEAK HOUR

Arterial Sections	Existing		Existing + Phase 1		2000 Cumulative		Existing + Phase 1 and Phase 2		2010 Cumulative	
	Average Travel Speed (mph)	LOS[1]	Average Travel Speed (mph)	LOS[1]	Average Travel Speed (mph)	LOS[1]	Average Travel Speed (mph)	LOS[1]	Average Travel Speed (mph)	LOS[1]
Geary Boulevard between:					Eastbound					
Collins Street and Baker Street	30.3	A	30.2	A	30.2	A	30.2	A	30.1	A
Baker Street and Divisadero Street	18.2	C	13.7	C	13.6	C	13.4	C	12.4	D
Overall	25.1	A	22.0	B	21.9	B	21.7	B	20.9	B
					Westbound					
Collins Street and Baker Street	31.2	A	31.2	A	31.0	A	31.1	A	30.7	A
Baker Street and Divisadero Street	21.0	B	17.7	C	17.6	C	17.7	C	17.4	C
Overall	27.1	A	25.2	A	25.1	A	25.2	A	24.8	B
Divisadero Street between:					Southbound					
Sutter Street and Geary Boulevard	9.9	D	9.6	D	9.1	D	9.5	D	7.5	E
Geary Boulevard and Turk Street	14.0	C	13.1	C	12.8	D	12.5	D	11.5	D
Overall	12.2	D	11.6	D	11.2	D	11.3	D	9.7	D
					Northbound					
Sutter Street and Geary Boulevard	12.6	D	12.5	D	12.4	D	12.5	D	12.1	D
Geary Boulevard and Turk Street	9.5	D	9.4	D	7.6	E	8.3	E	5.2	F
Overall	10.4	D	10.3	D	8.8	E	9.4	D	6.5	F

Notes:
Operations that exceed the Congestion Management Program Standard of acceptability of LOS E are underlined.

1. Level of Service determined from the *1985 Highway Capacity Manual, Chapter 11, Special Report 209.*

Source: Korve Engineering, Inc.

planned UCSF/Mount Zion expansion project, and then adding the traffic generated by the Kaiser Geary Campus Project Phase 1.

Intersections

As part of the transportation study for this proposed project, the Department of City Planning requires the analysis of Existing Plus Phase 1 conditions. The results of this analysis are included in Table IV.G.1, p. 353. With the addition of Phase 1 traffic to existing conditions, all seven study intersections would operate at LOS B or better during the weekday PM peak hour.

Under Year 2000 Cumulative conditions, all seven study intersections would operate at LOS C or better conditions during the weekday PM peak hour. Although the French Campus would be used as a temporary relocation site during development of Phase 1, the additional traffic in the vicinity would not result in substantial impacts to the intersections, given the LOS A and LOS B conditions (see VII.F. No 2290 Geary Boulevard - Dual Campus Alternative, p. 666).

Arterials

The results of the arterial analysis for Existing Plus Phase 1 are included in Table IV.G.2, p. 354. With the addition of Phase 1 traffic to existing conditions, all arterial segments analyzed would operate at LOS D or better during the weekday PM peak hour.

Year 2000 background traffic would further degrade the arterial operating conditions on the segment of northbound Divisadero Street, between Geary Boulevard and Turk Street, from LOS D, under Existing Plus Phase 1 conditions, to LOS E (average travel speed of 7.6 mph) during the weekday PM peak hour. However, this service level is considered acceptable, since it does not exceed the CMP standard of LOS E for arterials.

Central Freeway

The Central Freeway runs from the I-80/U.S. 101 over Market Street into the Hayes Valley/Western Addition neighborhood. The 1989 Loma Prieta earthquake severely damaged portions of the Central Freeway that extended northwest from U.S. 101 to the vicinity of Gough and Franklin Streets. Following the earthquake, the freeway was demolished back to the Oak Street on-ramp (upper deck) and the Fell Street off-ramp (lower deck), and the remainder of the concrete structure was braced. With the removal of the ramps leading to Franklin/Gough Streets in 1991/early 1992, traffic decreased on these streets but increased on the streets leading to the Oak/Fell Street ramps, as well as on Mission Street, Van Ness Avenue, and South Van Ness Avenue.

The City and County of San Francisco is currently conducting planning studies to evaluate alternatives for the replacement of the remaining section of the Central Freeway. While no decisions have been made on an alternative for implementation, Caltrans has targeted the end of 1998 as the completion date for the replacement Central Freeway. Currently, the upper deck of the Central Freeway, between Mission and Fell Streets, is being demolished. This demolition is expected to be completed by the end of 1996.

During the two-year period after the upper deck has been removed, and before the full reconstruction of the replacement Central Freeway, traffic destined to the East Bay and South Bay would depend on local streets to access the freeway. Consequently, there could potentially be traffic diversions in the Hayes Valley and South of Market areas. However, the impacts of these diversions are not expected to be significant within the vicinity of the Kaiser Geary Campus.

Year 2010

Year 2010 Cumulative traffic analyses were also conducted in order to assess traffic impacts associated with local cumulative development under buildout of Phase 2 conditions. For the

Year 2010 Cumulative conditions, future traffic volumes were obtained by applying a 0.5 percent compound annual growth rate (or 7.77 percent over 15 years) to the existing background traffic, adding traffic generated by the planned UCSF/Mount Zion expansion project, and then adding the traffic generated by buildout of Kaiser Phase 2.

Intersections

As part of the transportation study for this proposed project, the Department of City Planning requires the analysis of Existing Plus Phase 1 and Phase 2 conditions. The results of this analysis are presented in Table IV.G.1, p. 353. Under these conditions, all seven study intersections would operate at LOS C or better during the weekday PM peak hour. Under Year 2010 Cumulative conditions, all seven study intersections would operate at LOS D or better conditions during the weekday PM peak hour.

Arterials

The results of the arterial analysis for Existing Plus Phase 1 and Phase 2 are included in Table IV.G.2, p. 354. With the addition of Phase 1 and Phase 2 traffic to existing conditions, all arterial segments analyzed would operate at LOS E or better during the weekday PM peak hour. Although the segment of northbound Divisadero Street, between Geary Boulevard and Turk Street, would operate at LOS E, this service level would be considered acceptable since it does not exceed the CMP standard of LOS E for arterials.

Year 2010 background traffic would further degrade the arterial operating conditions on the northbound segment of Divisadero Street, between Geary Boulevard and Turk Street, from LOS E under Existing Plus Phase 1 and Phase 2, to LOS F (average travel speed of 5.2 mph) during the weekday PM peak hour. This degradation in LOS would be caused by the addition of background traffic from future cumulative development. This segment of Divisadero Street

would operate at LOS F conditions without Phase 1 and Phase 2 of the project. LOS F is unacceptable under the CMP arterial segment standard.

PARKING REQUIREMENTS, DEMAND, AND ACCESS

Parking requirements were calculated based on the total uses at the end of Phase 1 (Year 2000) and the end of Phase 2 (Year 2010). In general, two methods were applied for computing the parking requirements. The first method calculates parking requirements based on the City Planning Code. The second method is similar to the City Planning Code method, except the San Francisco Redevelopment Agency (SFRA) Standard is applied (instead of the City Planning Code) to any buildings located within a redevelopment project area. Figure III.A.1, p. 106, shows the SFRA jurisdiction. For the proposed project, the SFRA parking requirements would apply to the Phase 1B/2139 O'Farrell Street, Phase 1C/2295 Geary Boulevard, and Phase 2A/1455 Divisadero Street buildings which would be located in the A-1 Plan and A-2 Plan areas. All other buildings located outside the redevelopment area would be required to meet the City Planning Code parking requirements. Table IX.F.9, p. A.74, and Table IX.F.10, p. A.75, of Appendix F compare the parking and supply requirements by phases using both methods.

Parking demand was estimated based on the net new vehicle traffic generated by Phase 1 (Year 2000) and by buildout of Phase 2 (Year 2010). The data and methodologies used to estimate parking demand for the Kaiser-related uses were provided in the Department of City Planning's *Guidelines for Environmental Review: Transportation Impacts*, the San Francisco Kaiser Permanente Employee Survey,[5] and on the findings from the on-site surveys conducted at the existing Geary Campus. Parking demand for the residential dwelling units at Phase 1B/2139 O'Farrell Street was estimated based on information provided in the *Guidelines for Environmental Review: Transportation Impacts*.

Parking access to the proposed parking garages was evaluated to assess potential queuing impacts at the garage entrances. Queuing analyses for vehicles entering the proposed parking garages during the AM and PM peak hours were conducted for the worst-case Phase 2 buildout

conditions, since the garage entrance constructed in Phase 1 buildings must be designed to accommodate the increased capacity under future Phase 2 buildout conditions.

Year 2000

Requirements

Based on the City Planning Code method, Phase 1 would be required to provide a total of approximately 1,230 parking spaces (including the existing 625 parking spaces in the 2130 O'Farrell garage and 15 parking spaces in the hospital parking lot). A maximum total of approximately 1,840 spaces are permitted as Accessory Use. Phase 1 would provide a total of approximately 1,870 parking spaces, or 30 spaces in excess of the number allowed as an Accessory Use. The project sponsor would be required to either seek a Conditional Use Authorization from the Planning Commission or to decrease the number of on-site parking spaces to that allowed as accessory use.

Applying the SFRA parking standards to the Phase 1C/2295 Geary Boulevard building and the City Planning Code requirements to the Phase 1A/2290 Geary Boulevard building, Phase 1 would be required to provide a total of approximately 1,580 parking spaces, or a maximum total of approximately 1,790 spaces would be permitted as Accessory Use under the City Planning Code. The SFRA standards are minimum requirements. The SFRA would consider the project parking demand in arriving at a decision on the total number of parking spaces to be provided at the proposed Phase 1C/2295 Geary Boulevard building.

Under both the City Planning Code and SFRA standard, the 21-unit residential apartment complex at Phase 1B/2139 O'Farrell Street would be required to provide one parking space for each dwelling unit. Phase 1B/2139 O'Farrell would comply with the off-street parking requirement by providing 21 parking spaces.

Demand

Because there would be no increase in the number of employees during Phase 1A/2290 Geary Boulevard there would be no net new parking demand. Even though there would be no net new parking demand after completion of the Phase 1A/2290 Geary Boulevard building, the number of on-site parking spaces would increase by 107 spaces.[6] These additional parking spaces plus the available parking spaces in the existing 2130 O'Farrell Street garage would be sufficient to accommodate all the employees who presently park on the street. However, the construction of on-site parking spaces in excess of demand may reduce the effectiveness of Kaiser's current TDM program. Phase 1C/2295 Geary Boulevard would create a net new parking demand of approximately 630 spaces (300 long-term [employee] and 330 short-term [patient and visitor]). This parking demand would be met by the proposed Phase 1 parking supply of approximately 830 spaces, with an overall excess supply of approximately 200 parking spaces. This excess supply could potentially reduce the effectiveness of Kaiser's current TDM program. Therefore, Kaiser could reduce the proposed supply by approximately 200 spaces and still meet the estimated parking demand. It should be noted that during the Phase 1C/2295 Geary Boulevard demolition of the 2190 O'Farrell Street garage, vehicles would temporarily park in the Phase 1A/2290 Geary Boulevard garage.

The 21-unit residential apartment complex would create a parking demand for 24 spaces. The proposed residential parking supply of 21 spaces would not be sufficient to meet the residential parking demand. There would be an unmet demand for three residential spaces. However, these units would replace the units proposed for demolition at 1401-17 Divisadero Street which has no off-street parking spaces. Thus, construction of the new residential building would actually lessen demand for on-street parking spaces. (See Table IV.G.3 for a comparison of parking demand to parking supply for Phase 1.)

TABLE IV.G.3: COMPARISON OF NET NEW PARKING DEMAND TO PROPOSED SUPPLY FOR PHASE 1

Phase	Parking Spaces	
	Demand	Supply
1A	0	620
1A + 1B	(see non-Kaiser below)	(see non-Kaiser below)
1A + 1B + 1C (Phase 1)	630 spaces	830 spaces
Non-Kaiser (Residential)	25 spaces	20 spaces

Source: Korve Engineering, Inc.

Access

The proposed new employee and public parking garage located at the Phase 1A/2290 Geary Boulevard building would have driveways located on Geary Boulevard and Garden Street. The results of a queuing analysis of the Phase 1A/2290 Geary Boulevard parking garage entrances indicate that there would be no AM or PM peak-hour queues at the Garden Street entrance. At the Geary Boulevard entrance, there would be an AM peak-hour queue of approximately 20 ft. and no PM peak-hour queue. Therefore, the Geary Boulevard entrance would need to provide an on-site storage length of 20 ft. in order to avoid peak- hour queuing on Geary Boulevard.

Although there would be no peak-hour queuing at the Garden Street garage entrance, potential conflicts could occur between Kaiser-related traffic on Garden Street and procession traffic related to the adjacent Sinai Memorial Chapel, which offers memorial services from 10:00 a.m. to 3:00 PM six days a week. The duration of each service takes about two hours, and there is an average of two to three services per day, up to a maximum of four services per day. The average length of a procession is about 25 cars for normal services and up to 60 to 75 cars for large services (about 10 percent of the total number of services held are large services). These procession vehicles queue up from the Sinai Memorial Chapel parking lot (located off Garden Street) to the chapel's main entrance (located on Divisadero Street, between Garden Street and Geary Boulevard), thus blocking the Garden Street access at 2290 Geary Boulevard. Therefore, any Kaiser-related vehicles destined to or departing from the Garden Street access while a Sinai

memorial funeral procession is in progress would either have to wait until the procession is over or be diverted to the Geary Boulevard access.

The proposed new public parking garage at the Phase 1C/2295 Geary Boulevard building would be designed for ingress/egress on the south side of Geary Boulevard, along the Broderick Street alignment. In Phase 2, the Phase 2B/New 350 St. Joseph's Avenue garage would share the same driveway with the Phase 1C/2295 Geary Boulevard garage. Based on the worst-case Phase 2 buildout queuing analysis of this garage entrance, there would be an AM peak-hour queue of approximately 140 ft., and a PM peak-hour queue of approximately 60 ft. Therefore, an on-site storage length of 140 ft. would need to be provided in the Phase 1C/2295 Geary Boulevard building to accommodate peak-hour queuing under build-out conditions. If the garage is designed with two ticket dispensers, the on-site queue length could be reduced to only 40 ft. at each dispenser. Vehicle queuing would not impact bus operations at the bus stop located about 375 ft. west of this garage entrance on Geary Boulevard at St. Joseph's Avenue.

Year 2010

Requirements

Applying the City Planning Code to the project as a planned unit development, Phase 2 would be required to provide a total of approximately 1,660 parking spaces (including the existing 625-space parking garage at 2130 O'Farrell Street and 15-space parking lot at the hospital to remain), or a maximum total of approximately 2,480 spaces permitted as Accessory Use. By Phase 2, the proposed project would provide a total of approximately 2,340 parking spaces, thus meeting the parking requirements under the City Planning Code method. The proposed supply would not exceed the maximum permitted as Accessory Use.

Based on the applicable SFRA standard and City Planning Code, Phase 2 would be required to provide a total of approximately 2,130 parking spaces, or a maximum total of approximately 2,410 spaces permitted for Accessory Use under the City Planning Code for Phase 2B/New 350

St. Joseph's Avenue. By Phase 2, the proposed project would provide a total of approximately 2,340 parking spaces, thus meeting the parking requirements under the applicable City Planning Code and SFRA requirements. The proposed supply would not exceed the maximum permitted as Accessory Use under the City Planning Code.

Demand

After completion of Phase 2A/1455 Divisadero Street, there would be sufficient parking supply on the Geary Campus to meet the total parking demand at the end of Phase 2A. (See Table IV.G.4 for a comparison of parking demand to parking supply for buildout of Phase 2.) Kaiser-related uses at buildout of Phase 2 would create a net new parking demand for approximately 1,000 spaces (480 long-term [employee] and 520 short-term [patient and visitor]). The parking demand would be met by the proposed parking supply of approximately 1,300 spaces, with an overall excess supply of approximately 300 parking spaces. This excess supply could potentially reduce the effectiveness of Kaiser's current TDM program. Therefore, Kaiser could reduce the proposed supply by approximately 300 spaces overall at the end of Phase 2 and still meet the estimated parking demand.

Access

In Phase 2, the proposed new employee parking garage at the Phase 2A/1455 Divisadero Street building would share the same driveway with the existing employee parking garage at 2130 O'Farrell Street (located on O'Farrell Street). As under current conditions, access would only be allowed via the entrance on O'Farrell Street. The existing access gates on Geary Boulevard are not currently used and would remain closed for the proposed project. The Phase 2 buildout queuing analysis of this garage entrance indicates that there would be an AM peak-hour queue of approximately 20 ft. and no PM peak-hour queue. The existing on-site storage length at 2130 O'Farrell Street is approximately 20 ft., which would be sufficient to accommodate the estimated peak-hour queues under Phase 2 buildout conditions.

TABLE IV.G.4: COMPARISON OF NET NEW PARKING DEMAND TO PROPOSED SUPPLY FOR PHASE 1 AND PHASE 2

Phase	Parking Spaces	
	Demand	**Supply**
1A	0 spaces	620 spaces
1A + 1B	(see non-Kaiser below)	(see non-Kaiser below)
1A + 1B + 1C (Phase 1)	630 spaces	830 spaces
Phase 1 + 2A	850 spaces	1,030 spaces
Phase 1 + 2A + 2B (Phase 2)	1,000 spaces	1,300 spaces
Non-Kaiser (Residential)	25 spaces	20 spaces

Source: Korve Engineering, Inc.

LOADING REQUIREMENTS, DEMAND, AND ACCESS

Loading Requirements

Loading requirements were calculated for the total uses at the end of Phase 1 (Year 2000) and the end of Phase 2 (Year 2010). In general, two methods were applied for computing the loading requirements. The first method calculates the loading requirements based on the City Planning Code. The second method requires the use of the City Planning Code for buildings under the City's jurisdiction and the SFRA Standard to any buildings located within the A-1 Plan or A-2 Plan areas. For the Kaiser Geary Campus, the Phase 1C/2295 Geary Boulevard and Phase 2A/1455 Divisadero Street buildings are located within the A-1 Plan area; therefore, the SFRA standards would be applied. All other buildings located outside the SFRA jurisdiction would be required to meet the City Planning Code loading requirements.

Although the Phase 1B/2139 O'Farrell Street residential building is located within the A-2 Plan area, neither the City Planning Code or the SFRA require off-street loading for this residential structures. Table IV.G.5 and Table IV.G.6, pp. 365 and 366, summarize the loading requirements by each sub-phase using both methods.

TABLE IV.G.5: COMPARISON OF TOTAL REQUIRED LOADING TO PROPOSED SUPPLY FOR PHASE 1

Land Use	Planning Code	SFRA Standard (Western Addition Plan)	Planned Unit Development (Planning Code)[1]	Total Required Loading	Total Supply
Planned Unit Development Method					
260,000-sq.-ft. Kaiser OPS Phase 1A[2]	2			2	2
686,430-sq.-ft. Kaiser uses (Phase 1C & hospital)					
(350,000-sq.-ft. Kaiser OPS Phase 1C and 336,430-sq.-ft. existing Hospital)[1]			4	4	6
TOTAL KAISER				**6**	**8**
22,740-sq.-ft. Residential Phase 1B[4]	**0**			**0**	**0**
SFRA Standard (Western Addition Plan) Method					
260,000-sq.-ft. Kaiser OPS Phase 1A[2]	2			2	2
350,000-sq.-ft. Kaiser OPS Phase 1C[3]		9		9	
336,430-sq.-ft. Hospital (existing)[2]	2			2	6
TOTAL KAISER				**13**	**8**
22,740-sq.-ft. Residential Phase 1B[4]		**0**		**0**	**0**

Notes:
OPS = Outpatient Services

1. For a planned unit development, the planning code is applied to the aggregate sq. ft. of these campus buildings. Code requires 3 spaces for over 500,000 sq. ft. plus 1 space for each additional 400,000 sq. ft.
2. Planning Code = 2 loading spaces for 200,001-500,000 sq. ft.
3. SFRA Standard for Western Addition A-1 Plan = 1 loading space per 40,000 sq. ft. or fraction thereof
4. Planning Code = 0 loading space for less than 100,000 sq. ft.

Source: Korve Engineering, Inc.

TABLE IV.G.6: COMPARISON OF REQUIRED LOADING TO PROPOSED SUPPLY FOR BUILDOUT OF PHASE 2

Land Use	Planning Code	SFRA Standard (Western Addition Plan)	Planned Unit Development (Planning Code)[1]	Total Required Loading	Total Supply
Planned Unit Development Method					
260,000-sq.-ft. Kaiser OPS Phase 1A	2			2	2
910,430-sq.-ft. Kaiser uses (350,000-sq.-ft. Kaiser OPS Phase 1C 127,000-sq.-ft. Kaiser OPS Phase 2A 97,000-sq.-ft. Kaiser Admin. Phase 2B and 336,430-sq.-ft. existing Hospital)			4	4	6
TOTAL KAISER				**6**	**8**
22,740-sq.-ft. Residential Phase 1B[4]	**0**			**0**	**0**
SFRA Standard (Western Addition Plan) Method					
260,000-sq.-ft. Kaiser OPS Phase 1A[2]	2			2	2
350,000-sq.-ft. Kaiser OPS Phase 1C[3]		9		9	
127,000-sq.-ft. Kaiser OPS Phase 2A[3]		3		3	
97,000-sq.-ft. Kaiser Admin. Phase 2B[2]	0			0	4[5]
336,430-sq.-ft. existing Hospital[2]	2			2	2
TOTAL KAISER				**16**	**8**
22,740-sq.-ft. Residential Phase 1B[4]		**0**		**0**	**0**

Notes:
OPS = Outpatient Services; Admin. = Administration

1. For a planned unit development, the planning code is applied to the aggregate sq. ft. of all campus buildings. Code requires 3 spaces for over 500,000 sq. ft. plus 1 space for each additional 400,000 sq. ft.
2. Planning Code = 2 loading spaces for 200,001-500,000 sq. ft.
3. SFRA Standard for Western Addition A-1 Plan = 1 loading space per 40,000 sq. ft. or fraction thereof
4. Planning Code = 0 loading space for less than 100,000 sq. ft.
5. Of these four loading spaces (to be shared by three buildings) one would be located in the 2295 Geary Boulevard building, one would be located at the new 350 St. Joseph's Avenue building, and two would be located in the existing 2130 O'Farrell building.

Source: Korve Engineering, Inc.

Loading Demand

Loading demand was estimated based on the truck loading activities for the total uses at the end of Phase 1 (Year 2000) and the end of Phase 2 (Year 2010). The methodology used to estimate loading demand was based on information provided in the *Guidelines for Environmental Review: Transportation Impacts*, Appendix 7, July 1991. Loading demand estimates include the number of delivery/service trips per day, and the corresponding loading space demand during an average hour and during a peak hour.

Loading Access and Operations

Loading Access and Operations at the proposed loading facilities were evaluated to assess potential loading impacts as they relate to truck access and loading operations.

Year 2000

Requirements

Based on the City Planning Code method, Phase 1 would be required to provide a total of six loading spaces--two spaces at Phase 1A/2290 Geary Boulevard and four spaces on the south side of Geary Boulevard. The total proposed supply of two loading spaces at Phase 1A/2290 Geary Boulevard would be adequate to meet the City Planning Code requirements on the north side of Geary Boulevard. The total proposed supply of six loading spaces on the south side of Geary Boulevard (one new space at Phase 1C/2295 Geary Boulevard, two existing spaces at 2130 O'Farrell Street, one existing space at old 350 St. Joseph's, and two existing loading spaces at the hospital) would exceed the City Planning Code loading requirements for the south side of Geary Boulevard. For 2139 O'Farrell Street, the City Planning Code does not require off-street loading spaces for residential developments of less than 100,000 sq. ft. The 2139 O'Farrell Street

building would be 17,400 sq. ft. and would, therefore, not be required to provide off-street loading.

Based on applicable City Planning Code and on the SFRA requirements , Phase 1 would be required to provide a total of 13 loading spaces; two spaces at Phase 1A/2290 Geary Boulevard under the City Planning Code, two spaces at the existing hospital, and nine spaces at Phase 1C/2295 Geary Boulevard under the SFRA standard. The proposed supply of three loading spaces (one new space at Phase 1C/2295 Geary Boulevard, two existing spaces at 2130 O'Farrell) would not be adequate to meet the SFRA loading requirements at Phase 1C/2295 Geary Boulevard. There is no SFRA standard for residential developments. Kaiser could request a variance from the SFRA commission to deviate from the SFRA loading requirements.

The heights of the loading spaces at Phase 1A/2290 Geary Boulevard would be 12 ft. and 14 ft., which would comply with the City Planning Code.

Demand

The Phase 1A/2290 Geary Boulevard building would generate a demand of 1.2 loading spaces per hour, or 1.5 loading spaces in the peak hour; two new loading spaces would be provided. The Phase 1C/2295 Geary Boulevard building would generate a demand of 1.6 loading spaces per hour, or 2.0 loading spaces in the peak hour; three loading spaces (two existing spaces at 2130 O'Farrell Street and one new space) would be provided, which is adequate to meet the loading demand. Total Kaiser uses under Phase 1 are estimated to generate approximately 40 delivery/service trips per day, which corresponds to a demand for 2.8 loading spaces on an average hour and 3.5 loading spaces in the peak hour. Delivery vehicles would consist primarily of vans and trucks. The supply of five loading spaces would be adequate to meet the estimated demand. (See Table IV.G.7 for a comparison of loading demand to loading supply for Phase 1.)

TABLE IV.G.7: COMPARISON OF LOADING DEMAND TO PROPOSED SUPPLY FOR NEW USES FOR PHASE 1

Phase	Loading Spaces		
	Demand		Supply
	Average	Peak	
Kaiser OPS @ 2290 Geary Blvd.	1.2	1.5	2 (new at 2290 Geary)
Kaiser OPS @ 2295 Geary Blvd.	1.6	2.0	4 (1 new at 2295 Geary, 2 existing at 2130 O'Farrell, & 1 existing at old 350 St. Joseph's)
Total Kaiser	2.8	3.5	6
17,400-sq.-ft. Residential (21 units)	<1	<1	0

Source: Korve Engineering, Inc.

Access and Operations (Freight Loading)

Phase 1 would provide two new loading spaces at Phase 1A/2290 Geary Boulevard, with access on Garden Street, near Broderick Street. To facilitate truck activity, Garden Street would be widened to 20 ft., by replacing the southern sidewalk along the proposed project's building face with a 1-ft.-wide curb. Potential conflicts could occur between trucks on Garden Street, cars entering and exiting the Sinai parking lot on the north side of Garden Street, and the procession vehicles at the Sinai Memorial Chapel (see Year 2000 Parking Access, pp. 361 - 362, for a discussion of Sinai's operations). The narrow travel lanes on Garden Street are such that loading vehicles destined to the proposed loading facility during Sinai operations (i.e., between 10:00 a.m. and 4:00 p.m. Sunday through Friday) would not be able to use Garden Street when Sinai memorial services are in progress. Loading vehicles would most likely access the loading facility via Broderick Street to Garden Street.

For external truck trips, only 18-ft. trucks from Kaiser's Livermore warehouse would make deliveries directly to Phase 1A/2290 Geary Boulevard. Large trucks (20 ft. to 30 ft.) for bulk deliveries from the Livermore warehouse, Baxter, and Owens Minor would continue to be accommodated at the existing two loading spaces at 2130 O'Farrell Street. Daily vendor deliveries, including FedEx and UPS, would also continue to be accommodated at 2130

O'Farrell Street. This loading facility is currently the main Distribution Center; Kaiser would continue to use it to accommodate all deliveries by trucks of more than 35 ft. in length.

For internal deliveries, goods would be transferred to a 12-ft. van or 18-ft. trucks from 2130 O'Farrell Street and delivered to the loading docks or service areas located at the other buildings. All loading/unloading activities would be conducted off-street under Phase 1.

Year 2010

Requirements

Based on the City Planning Code method, Phase 2 would be required to provide a total of six loading spaces; two spaces at Phase 1A/2290 Geary Boulevard and four spaces on the south of Geary Boulevard. The total proposed supply of two new loading spaces at Phase 1A/2290 Geary Boulevard building would be adequate to meet the City Planning Code requirements for this building. The total proposed supply of six loading spaces on the south side of Geary Boulevard (one new space at Phase 1C/2295 Geary Boulevard, two existing spaces at 2130 O'Farrell Street, one space at Phase 2B/New 350 St. Joseph's Avenue, and two existing spaces at the hospital) would be adequate to meet the loading requirements on the south side of Geary Boulevard under the City Planning Code method.

Applying the SFRA loading requirements to building sites under SFRA jurisdiction, a total of 12 loading spaces would be required; nine spaces at Phase1C/2295 Geary Boulevard, and three spaces at Phase 2A/1455 Divisadero Street. No spaces are required for the Phase 2B/New 350 St. Joseph's Avenue building. The proposed supply of three loading spaces (one new space at Phase 1C/2295 Geary Boulevard, and two existing spaces at 2130 O'Farrell Street) would not be adequate to meet the SFRA loading requirements for the proposed Phase 1C/2295 Geary Boulevard and Phase 2A/1455 Divisadero Street buildings on the south side of Geary Boulevard. Kaiser could request a variance from the SFRA commission to deviate from the SFRA loading requirements.

Demand

The Phase 2A/1445 Divisadero Street building would generate a demand of 0.6 loading spaces per hour, or 0.7 loading spaces in the peak hour; two new loading spaces would be provided. The Phase 2B/350 St. Joseph's Avenue building would generate a demand of 0.5 loading spaces per hour, or 0.6 loading spaces in the peak hour. Four loading spaces (two existing spaces at 2130 O'Farrell Street, one new space at 2295 O'Farrell Street, and the existing off-street loading area at 350 St. Joseph's Avenue) would be provided, which is adequate to meet the projected loading demand. By buildout of Phase 2, new Kaiser uses are estimated to generate approximately 60 delivery/service trips per day, which corresponds to a demand for 3.9 loading spaces on an average hour and 4.8 loading spaces in the peak hour. Delivery vehicles would consist primarily of vans and trucks. The supply of six loading spaces (four new spaces and two existing spaces) would be adequate to meet the estimated demand. (See Table IV.G.8 for a comparison of loading demand to loading supply for buildout of Phase 2).

Access and Operations (Freight Loading)

Loading activities at Phase 2A/1455 Divisadero Street would occur at the two existing loading spaces at 2130 O'Farrell Street, and loading activities at Phase 2B/New 350 St. Joseph's Avenue would occur at the proposed loading area for this building. External deliveries for linen and cleaning supplies would be made in 18-ft. trucks to the off-street loading area at 350 St. Joseph's Avenue. In addition, a 12-ft. van or 18-ft. trucks would be used to make internal deliveries from the main Distribution Center at 2130 O'Farrell Street to the loading area at 350 St. Joseph's Avenue. Therefore, all loading/unloading activities would be conducted off-street under Phase 2.

TABLE IV.G.8: COMPARISON OF LOADING DEMAND TO PROPOSED SUPPLY FOR NEW USES FOR PHASE 1 AND PHASE 2

Phase	Loading Spaces		
	Demand		Supply
	Average	Peak	
Kaiser OPS @ 2290 Geary	1.2	1.5	2 (new at 2290 Geary)
Kaiser OPS @ 2295 Geary	1.6	2.0	4 (1 new at 2295 Geary, 2 existing at
Kaiser OPS @ 1455 Divisadero	0.6	0.7	2130 O'Farrell, & 1 new at 350 St. Joseph's)
Kaiser Admin. @ 350 St. Joseph's	0.5	0.6	
Total Kaiser	3.9	4.8	6
17,400-sq.-ft. Residential (21 units)	<1	<1	0

Source: Korve Engineering, Inc.

PEDESTRIAN MOVEMENTS

Phase 1 (Year 2000) and buildout Phase 2 (Year 2010) Kaiser-related pedestrian traffic was estimated based on the transit and walk mode split data obtained from the on-site questionnaire surveys, while the non-Kaiser-related (i.e., existing commercial, retail, and office uses) pedestrian traffic was based on transit and walk mode split data provided by the Department of City Planning. Transit mode split data were used in order to account for the pedestrians who would use public transit to the project area and then walk from the bus stop to the project site. Pedestrian analyses were conducted at the intersections of Geary Boulevard/St. Joseph's Avenue and Geary Boulevard/Divisadero Street during the weekday 15-minute PM peak hour.

Year 2000

In Phase 1, Kaiser's medical records would be relocated from their current locations at 350 St. Joseph's Avenue and 2200 O'Farrell Street to the Phase 1C/2295 Geary Boulevard building, and the construction of Phase 1A/2290 Geary Boulevard would result in integration of certain

functions between this building and the Phase 1C/2295 Geary Boulevard building, such as medical record retrieval, physical therapy, radiology, and staff consultations. The location of Phase 1A/2290 Geary Boulevard north of Geary Boulevard would cause an increase in the number of pedestrian trips between the north and south sides of Geary Boulevard. In addition, patients would move from one side of Geary to the other, travelling from medical appointments to other locations on campus for services such as radiology, pharmacy, etc. This, in turn, would result in additional pedestrian traffic at the intersections of Geary Boulevard/Divisadero Street (approximately 700 pedestrian trips per day) and Geary Boulevard/St. Joseph's Avenue (approximately 250 pedestrian trips per day). The future interaction between the two buildings also would increase the number of pedestrians that cross Geary Boulevard at Broderick, an uncontrolled intersection, mid-block between Divisadero Street and Baker Street/St. Joseph's Avenue, thus causing a potentially hazardous condition. Many Kaiser patients who would cross Geary Boulevard are elderly, disabled or mobility-impaired people and young children. These people may find the available signal time to cross Geary Boulevard (i.e., 40 seconds to cross Geary Boulevard at Divisadero Street and 30 seconds at St. Joseph's Avenue) to be inadequate, since slower walkers could require up to approximately 50 seconds to cross these intersections. Field observations indicate that elderly and mobility-impaired persons were unable to completely cross the intersection of Geary Boulevard/St. Joseph's Avenue during the allotted time, despite beginning to cross immediately at the signal phase change. In addition, the six-degree slope along Geary Boulevard between Divisadero Street and St. Joseph's Avenue could be difficult to climb.

Phase 1 would generate approximately five net new pedestrian trips at the intersection of Geary Boulevard/St. Joseph's Avenue during the 15-minute PM peak hour and approximately 15 net new pedestrian trips at the intersection of Geary Boulevard/Divisadero Street. With the additional pedestrian trips from Phase 1, operating conditions on the four crosswalks of the two study intersections would remain the same (i.e., LOS A) as under existing conditions during the weekday 15-minute PM peak hour. These estimates do not take into account the future interaction between the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings, since the additional number of pedestrians as a result of this future interaction cannot be quantified at this time.It is not likely that the additional pedestrian trips would result in

unacceptable LOS at the crosswalks given the excellent LOS A conditions under existing conditions.

Pedestrian Bridge Variant

This variant, under consideration by the project sponsor, would include construction of a pedestrian bridge to connect the Phase 1A/2290 Geary Boulevard building on the north side of Geary Boulevard to the south side of Geary Boulevard in order to facilitate operational interdependency of both sides of the campus and to improve pedestrian circulation and safety on the Geary Campus.

The pedestrian bridge would improve the coordination of inter-related activities on the north and south sides of the campus; reduce the number of pedestrians crossing Geary Boulevard at Divisadero Street and at St. Joseph's Avenue; and improve safety for all Kaiser patients, employees, and visitors, especially the elderly, frail, children, and mobility-impaired persons; and minimize the number of pedestrians currently crossing Geary Boulevard at mid-block between St. Joseph's Avenue and Divisadero Street.

Year 2010

By buildout of Phase 2, the project would generate approximately 10 net new pedestrian trips at the intersection of Geary Boulevard/St. Joseph's Avenue during the 15-minute PM peak hour, and approximately 20 net new pedestrian trips at the intersection of Geary Boulevard/Divisadero Street. With the additional pedestrian trips from Phase 2, operating conditions on the four crosswalks of the two study intersections would remain the same (i.e., LOS A) as under existing conditions during the weekday 15-minute PM peak hour. As stated in the year 2000 analysis, these estimates do not take into consideration the future interactions between the buildings on both sides of Geary Boulevard.

TRANSIT

Nine San Francisco Municipal Railway (MUNI) lines and one Golden Gate Transit line provide service to the project site. Although direct connections to regional transit services (i.e., AC Transit, BART, ferry, SamTrans, and CalTrain) are not available in the project area, these systems are accessible via MUNI lines by transferring in the downtown area. Estimated project transit demand was based on the net new transit trips generated by Phase 1 (Year 2000) and by Phase 2 (Year 2010). Net new transit trips were estimated from the transit mode split data obtained from the on-site questionnaire surveys conducted at the existing Geary Campus.

Year 2000

Phase 1 is estimated to generate approximately 90 net new transit trips during the weekday PM peak hour. The estimated transit trips would be distributed among the existing transit lines that serve the project area.

Phase 1 would add approximately 0.53 passengers per bus to the Line 38 and the Line 38L in the peak-hour peak direction (westbound), approximately 0.39 passengers per bus to the Line 24 in the peak-hour peak direction (northbound), approximately 0.20 passengers on the Line 43 in the peak-hour peak direction (northbound), and approximately 0.14 passengers per bus in the peak-hour peak directions to the other six bus lines in the project vicinity (including Golden Gate Transit Line 50). These additional passengers per bus could be accommodated on all the transit lines that serve the project, since these lines have sufficient available capacities at the site. In addition, most of the PM peak-hour project transit trips would be traveling in the reverse-commute direction (eastbound), with more capacity available.

Year 2010

By buildout of Phase 2, the proposed project is estimated to generate approximately 160 net new transit trips during the weekday PM peak hour. The estimated trips would be distributed among the existing transit lines that serve the project area.

Buildout of Phase 2 would add approximately 1.41 passengers per bus on the Line 38 and the Line 38L in the peak-hour peak direction (westbound), approximately 0.59 passengers per bus to the Line 24 in the peak-hour peak direction (northbound), approximately 0.30 passengers to Line 43 in the peak-hour peak direction (northbound), and approximately 0.34 passengers per bus in the peak-hour peak directions to the other six bus lines in the project vicinity. These additional passengers per bus could be accommodated on all the transit lines that serve the project, since these lines have available capacities at the site. In addition, most of the PM peak-hour project transit trips would be traveling in the reverse-commute direction (eastbound), thus having more capacity available in this direction.

DEMOLITION AND CONSTRUCTION

Table IX.F.13, pp. A.78 - A.80 in Appendix F, provides a summary of the nature and duration of construction activities associated with the project in terms of staging, lane closures, etc.

Year 2000

Phase 1A/2290 Geary Boulevard Construction

During construction of the Phase 1A/2290 Geary Boulevard building, the vacant gas station lot on the southeast corner of Post Street and Broderick Street would be used for staging purposes. The existing parking lane along the perimeter of the site on Geary Boulevard and Broderick Street would be closed for a period of 24 months. This would cause a temporary loss of

approximately 12 on-street parking spaces (9 time-restricted and 3 colored spaces). The demand for these 12 spaces could be met in the existing Kaiser-operated garages or other public parking garages near the project vicinity. The existing north sidewalk along the project perimeter on Geary Boulevard would be closed and a temporary covered walkway would be constructed to provide safe pedestrian access. The east sidewalk along the site perimeter on Broderick Street would be closed and pedestrians would be directed to use the west sidewalk, or a temporary covered walkway would be constructed for use on the east side.

Truck loading and unloading would occur along Garden Street or Geary Boulevard and within the closed-off parking lanes. The estimated total number of construction-vehicle trips (two-way) would be between 16 to 30 per day. Except for the foundation phase, the peak construction period would generate approximately 20 to 40 truck trips per day. During the demolition and excavation period (five months), approximately 30 truck trips would be generated per day. In order to minimize conflicts with Sinai Memorial Chapel's procession activity on Garden Street and Divisadero Street, the contractor would be required to obtain a procession schedule from Sinai in advance and assign a construction supervisor to divert construction vehicles to Geary Boulevard during the procession period.

Truck routes are expected to be via Geary Boulevard to Broderick Street and Post Street. A projected demand for 10 to 105 daily worker parking spaces would be provided at an off-site, off-street location. Construction workers would be shuttled to the project site, if necessary. The location of this temporary parking would be determined by the project sponsor.

During the concrete pour for the foundation work, approximately 570 truck trips (two-way) are expected. This would be a one-day activity occurring on a Saturday, between the hours of 6:00 a.m. and 5:30 p.m. An average of 50 trucks would be cycled in and out of the site per hour. The westbound traffic lane next to the parking lane and parking lane on Geary Boulevard would be closed for the duration of the pouring activities. Broderick Street and Garden Street would also be closed. No significant impacts are expected since these activities would occur during non-peak periods when traffic conditions are not congested. Any impacts which may occur would be temporary and of short duration.

Pedestrian Bridge Variant

The construction of the proposed pedestrian bridge would occur in connection with or after the completion of the Phase 1A/2290 Geary Boulevard building and sometime prior to the completion of the Phase 1C/2295 Geary Boulevard building. It is estimated that construction of the pedestrian bridge would take approximately four months (about 17 weeks). Of the four months, about one week would be excavation work, two weeks would be foundation work, five weeks would be superstructure work, and nine weeks would be enclosure and finishes work.

The excavation and foundation work for construction of the bridge mid-span support pier would occur in the center median of Geary Boulevard during a three-week construction period. Concrete pouring activities would occur on four days. To minimize peak period traffic impacts during the construction period, the eastbound traffic lane directly adjacent to the center median would be closed from 9:00 a.m. to 3:30 p.m. (i.e., outside the AM peak period between 7:00 a.m. and 9:00 a.m.), and the westbound traffic lane directly adjacent to the center median would be closed from 7:00 a.m. to 3:30 p.m. (i.e., outside the PM peak period between 4:00 p.m. and 6:00 p.m.). Significant traffic impacts are not expected to occur because all lane closures would occur during non-peak periods when traffic conditions are not congested. With two lanes in each direction open, vehicles traveling along Geary Boulevard during the lane closure period would experience slight increases in average vehicle delay.

The construction of the bridge superstructure would be staged at the vacant lot on the southwest corner of Geary Boulevard and Divisadero Street (old Texaco site). The bridge structure would be pre-assembled in two sections. Section #1 would be hoisted to span the westbound lanes of Geary Boulevard, and Section #2 would span the eastbound lanes. During the erection of Section #1, two westbound traffic lanes adjacent to the center median and the north sidewalk on Geary Boulevard would be closed. During the erection of Section #2, two eastbound traffic lanes adjacent to the center median and the south sidewalk on Geary Boulevard would be closed. The erection of each section would take approximately six hours, and would occur on two consecutive Sundays, from 12:00 a.m. to 6:00 a.m., to minimize the traffic impacts.

During the peak construction period, a maximum of eight truck trips per day would occur. To minimize traffic impacts during the peak periods, the truck trips in the eastbound direction would occur during the hours of 9:00 a.m. to 6:00 p.m. (outside the eastbound AM peak period), and the truck trips in the westbound direction would occur during the hours of 7:00 a.m. to 3:30 p.m. (outside the westbound PM peak period).

Phase 1B/2139 O'Farrell Street Construction

During demolition and construction of the Phase 1B/2139 O'Farrell Street building, an on-site location would be used for staging. The existing parking lane along the perimeter of 2139 O'Farrell would be closed for a period of eight months causing a temporary loss of approximately four time-restricted on-street parking spaces. Either a temporary covered-walkway would be constructed to provide safe pedestrian access or pedestrians would be directed to use the northern sidewalk. Truck loading and unloading would occur along O'Farrell Street, within the closed-off parking lane. The peak parking demand would be for eight daily worker parking spaces. On-site parking for construction workers would be provided within the 2130 O'Farrell Street garage. Concrete pouring activities during the foundation phase would be conducted within the construction site and would occur for a total of approximately 17 days over the course of four months on an average of one day per week, with a maximum of approximately three days per week.

1401-17 Divisadero Street Demolition

Demolition of 1401-17 Divisadero Street would take approximately one-half month. It is expected that the staging area would be located on the southwest corner of Geary Boulevard and Divisadero Street (Texaco site). A temporary covered walkway would be constructed along the perimeter and the parking lane along the Divisadero Street perimeter would be closed. This would cause a temporary loss of up to five on-street parking spaces (time-restricted).

Phase 1C/2295 Geary Boulevard Construction

During demolition of the 2200 O'Farrell building, the 2200 Annex and the trailers, and the construction of the Phase 1C/2295 Geary Boulevard building, the southwest corner of Geary Boulevard and Divisadero Street would be used for construction staging. In addition, after demolition of the 1401-17 Divisadero building, the entire parcel along Divisadero Street, between Geary Boulevard and O'Farrell Street, could be used for staging and material storage. The parking lane along the perimeter of the site on Geary Boulevard and O'Farrell Street would be closed for a period of 35 months. This would cause a temporary loss of approximately 30 on-street parking spaces (13 metered, 14 time-restricted, and 3 colored spaces). The demand for these on-street parking spaces could be met in the Kaiser-operated parking garages.

The existing southern sidewalk along the project perimeter on Geary Boulevard would be closed, and a temporary covered walkway would be constructed to provide safe pedestrian access. The northern sidewalk along the O'Farrell Street perimeter would be closed and pedestrians would be directed to use the southern sidewalk, or a temporary covered walkway would be constructed for use on the northern sidewalk. Truck loading and unloading would occur along Geary Boulevard and O'Farrell Street within the closed off parking lane. The total estimated number of construction vehicle trips (two-way) would be between 20 to 36 vehicles per day. Except for concrete pour for the foundation, the peak construction period would generate approximately 20 to 50 truck trips per day. During the demolition and excavation period (about 13 months), approximately 40 truck trips would be generated per day. Truck routes are expected to be via Geary Boulevard to Divisadero Street and O'Farrell Street. The construction worker parking demand would range from 25 to 140 daily worker parking spaces. Construction worker parking would be provided within the Kaiser-operated parking garages and the 2295 Geary Building after the parking levels are completed.

During the concrete pour for the foundation work, approximately 910 truck trips (two-way) are expected. This would be a one-day activity occurring on a Saturday, between the hours of 6:00 a.m. and 9:00 p.m. An average of 60 trucks would be cycled in and out of the site per hour. An eastbound traffic lane and parking lane on Geary Boulevard would be closed for the duration of

the pouring activities. Westbound O'Farrell Street and St. Joseph's Avenue would also be closed. No significant impacts are expected since these activities would occur during non-peak periods when traffic conditions are not congested. Any impacts which may occur would be temporary and of short duration only.

One traffic lane may be closed from time to time when construction materials are delivered by flatbed trucks. The MUNI bus stops may have to be temporarily relocated to the opposite street corners. Should bus stops be relocated, the contractor would be required to contact the MUNI Chief Inspector for approval prior to the start of construction.

The project sponsor would meet with the Chief Inspector of MUNI and Golden Gate Transit to identify appropriate locations for all transit stops that would be relocated during the construction period, with approval from the Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT). This would be required as part of the street use permit process.

Year 2010

Phase 2A/1455 Divisadero Street Construction

During construction of 1455 Divisadero Street, all staging areas would be on-site. The existing parking lane along the perimeter of the site on Geary Boulevard and Divisadero Street would be closed for a period of 20 months. This would cause a temporary loss of approximately five on-street parking spaces (time-restricted). The demand for these five spaces could be met by the Kaiser-operated parking garages. The existing sidewalks along the project perimeter on Geary Boulevard and Divisadero Street would be closed, and a temporary covered walkway would be constructed to provide safe pedestrian access.

Truck loading/unloading would occur along Divisadero Street within the closed-off parking lane. An average of approximately 12 to 20 truck trips (two-way) would be generated. Except for the concrete pour for foundation, the peak construction period would generate approximately 18 to

36 truck trips. During the demolition and excavation period (about four months), approximately 30 truck trips would be generated per day. A projected parking demand for 10 to 85 daily worker parking spaces would be provided within the Kaiser-operated parking garages. Alternatively, the construction workers could use the excess public parking spaces available. Truck routes are expected to be via Geary Boulevard to Divisadero Street and O'Farrell Street.

During the concrete pour for the foundation work, approximately 330 truck trips (two-way) are expected. This would be a one-day activity occurring on a Saturday, between the hours of 6:00 a.m. and 4:30 p.m. An average of 31 trucks would be cycled in and out of the site per hour. An eastbound traffic lane and parking lane on Geary Boulevard and the westbound traffic lane and parking lane on O'Farrell Street would be closed for the duration of the pouring activities. Divisadero Street is expected to remain open. No significant impacts are expected since these activities would occur during non-peak periods when traffic conditions are not congested. Any impacts which may occur would be temporary and of short duration only.

It is also anticipated that the MUNI bus stop on the south side of Geary Boulevard at Divisadero Street would be temporarily relocated to the southeast corner of Geary Boulevard/Divisadero Street, and the bus stop on the west side of Divisadero Street at Geary Boulevard would be temporarily relocated to the northwest corner of Divisadero Street (i.e., in front of the Sinai Memorial Chapel). The contractor would be required to contact the MUNI Chief Inspector for approval prior to the start of construction.

Phase 2B/New 350 St. Joseph's Avenue Construction

During demolition and construction of Phase 2B/New 350 St. Joseph's Avenue, the 2350 Geary Boulevard site would be used for staging. The existing parking lane along the perimeter of the site on Geary Boulevard and St. Joseph's Avenue would be closed for a period of approximately 19 months. This would cause a temporary loss of approximately 19 on-street parking spaces (10 metered and 9 colored spaces). The demand for these 19 spaces could be met by the Kaiser-

operated parking garages or other public parking garages in the project vicinity. A temporary covered walkway would be constructed to provide safe pedestrian access.

Truck loading/unloading would occur along Geary Boulevard, within the closed-off parking lanes. An average of approximately 12 to 20 truck trips (two-way) would be generated. Truck routes are expected to be via Geary Boulevard to Divisadero Street, O'Farrell Street, St. Joseph's Avenue, and Baker Street. Except for concrete pour for the foundation, the peak construction period would generate approximately 18 to 30 truck trips. During the demolition and excavation period (about three months), there would be approximately 30 truck trips generated per day. The parking demand would vary from 14 to 75 daily worker parking spaces. On-site parking for the workers would be provided in the parking garages located within the campus.

During the concrete pour for the foundation work, approximately 480 truck trips (two-way) are expected. This would be a one-day activity occurring on a Saturday, between the hours of 6:00 a.m. and 4:00 p.m. An average of 48 trucks would be cycled in and out of the site per hour. An eastbound traffic lane and parking lane on Geary Boulevard and the westbound traffic lane and parking lane on St. Joseph's Avenue would be closed for the duration of the pouring activities. No significant impacts are expected since these activities would occur during non-peak periods when traffic conditions are not congested. Any impacts which may occur would be temporary and of short duration only.

One traffic lane may be closed from time to time when construction materials are delivered by flatbed trucks. The MUNI bus stop at Geary Boulevard in front of the project site would be temporarily relocated to the opposite street corner in front of the hospital. The contractor would be required to contact the MUNI Chief Inspector for approval prior to the start of construction.

NOTES - Transportation and Circulation

1. The information in this section is based on the *San Francisco Kaiser Geary Campus Project Transportation Study*, prepared by Korve Engineering, Inc. in consultation with the San Francisco Planning Department, dated June 1996. A copy of that report is on file and available for public review at the Planning Department, 1660 Mission Street, San Francisco.

2. San Francisco Department of City Planning, *Guidelines for Environmental Review: Transportation Impacts,* July 1991.

3. The Kaiser Geary Campus is located within San Francisco's Superdistrict 2. Superdistricts are travel analysis zones established by the Metropolitan Transportation Commission (MTC). Superdistrict 2 is generally bounded by Van Ness Avenue, the southern boundary of Golden Gate Park, the San Francisco Bay, and the Pacific Ocean.

4. Traffic generated by the UCSF/Mount Zion expansion project was obtained from the *University of California San Francisco - Mount Zion Hospital and Medical Center Proposed Integration Agreement, Environmental Impact Report*, dated September 22, 1989.

5. In compliance with the requirements of the San Francisco Department of City Planning, the San Francisco Kaiser Permanente Medical Center conducted an employee survey in January 1995 to update its current Transportation Systems Management (TSM) Plan. The survey was conducted for both the Geary and French campuses.

6.

532	parking spaces proposed at 2290 Geary Boulevard
- 7	demolished from 25 Garden Street
- 10	demolished from 2200 O'Farrell Street
- 408	demolished from 2190 O'Farrell Street
107	parking spaces

H. NOISE

OPERATIONAL NOISE

Year 2000

Project Stationary Equipment Noise

Nuisance noise could occur as a result of equipment operation (i.e., pumps, ventilation fans, air conditioning apparatus) installed on the outpatient services buildings proposed at the Phase 1A/2290 Geary Boulevard site and the Phase1C/2295 Geary Boulevard site. Lack of project-specific data on noise emissions from such equipment preclude quantitative analysis of equipment noise impacts. The project sponsor has indicated that it would comply with the San Francisco Noise Ordinance which would require that equipment noise levels at the nearest residential areas be reduced to 55 dBA during the day and 50 dBA during the night. All proposed buildings would comply with CAC Title 24 requirements.

Project On-Site Activity Noise

Nuisance noise could occur as a result of occasional activities (i.e., loud music, parties, etc.) by the future residents of the proposed Phase 1B/2139 O'Farrell Street apartments. Similar types of noise currently occurring at the 1401-17 Divisadero Street apartments would cease after demolition of that structure in Phase 1B/2139 O'Farrell Street. Lack of reliable generic or project-specific data on the frequency or intensity of such events in a residential development preclude quantitative analysis of potential nuisance noise impacts from the Phase 1B/2139 O'Farrell Street building. The potential for disturbance is greatest for the existing residents immediately adjacent to the west and south of the Phase 1B/2139 O'Farrell Street site.

Nuisance noise could also occur as a result of late night or early morning supply deliveries or garbage pickups associated with the outpatient services buildings. However, the delivery/pickup

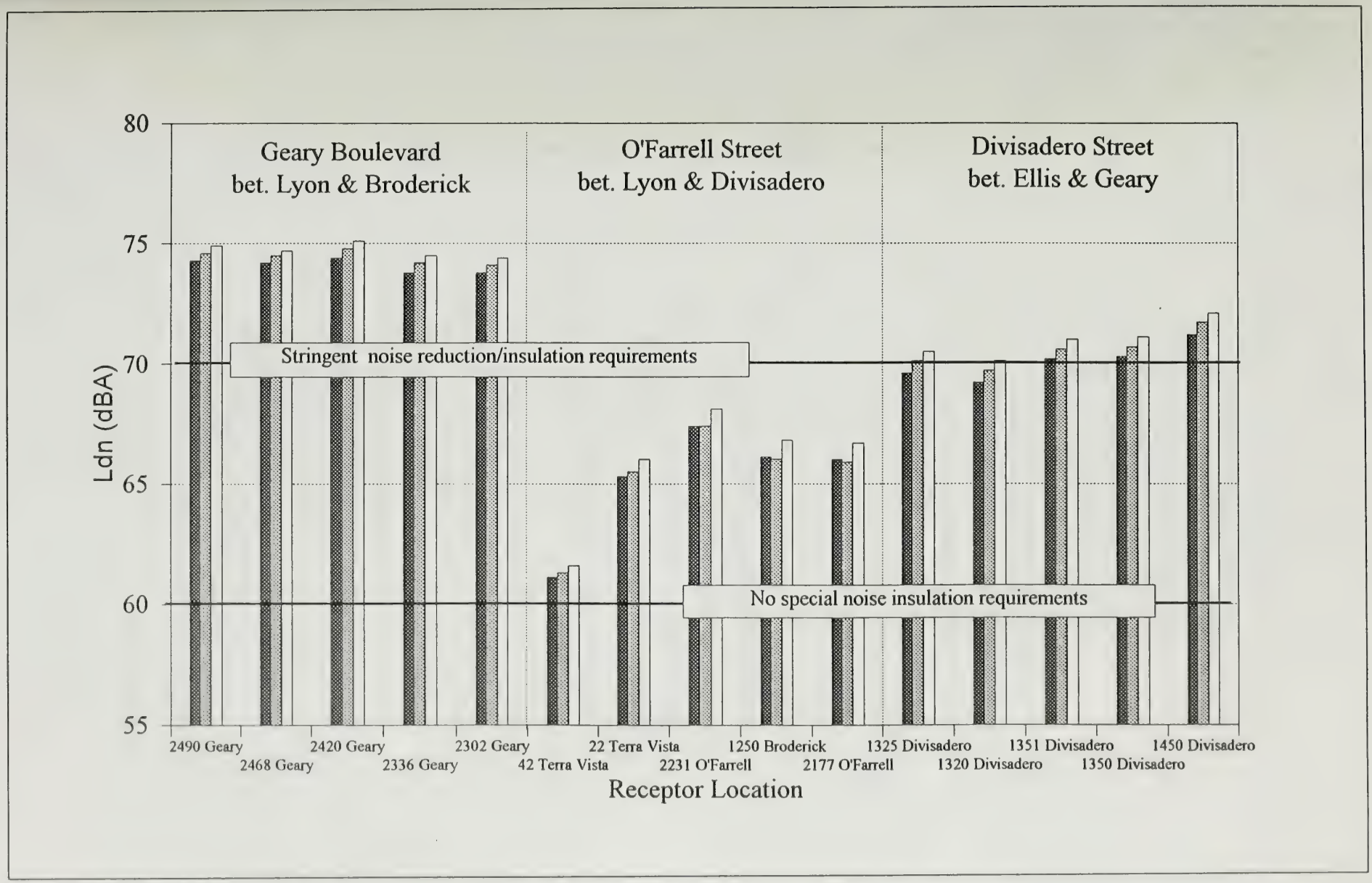
schedules, both internal and external, of the new facilities are expected to be similar to those of the existing facilities. Most of the new delivery trips would be internal, occurring after 7 a.m.; there would be no nocturnal deliveries. In addition, the Phase 1A/2290 Geary Boulevard loading dock would be near the west end of Garden Street, distant from mid-block where the residential uses are located. Thus, night and early morning noise impacts to residents nearest the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard loading docks would not occur.

Project and Cumulative Vehicular Noise

Using the SOUND32 model, developed by Caltrans, future traffic noise levels were estimated along the three major roadways adjacent to the Kaiser Geary Campus. The model was initialized with traffic volume data provided by Korve Engineering, the project transportation consultant, and was calibrated to assure exact agreement between measured and modeled noise levels at the existing measurement locations. L_{dn} was modeled at five selected residential receptors along each roadway. Existing and Year 2000 total L_{dn} levels are shown on Figure IV.H.1 while the project and added cumulative traffic increments to the total L_{dn} in the year 2000 are shown on Figure IV.H.2, p. 388.

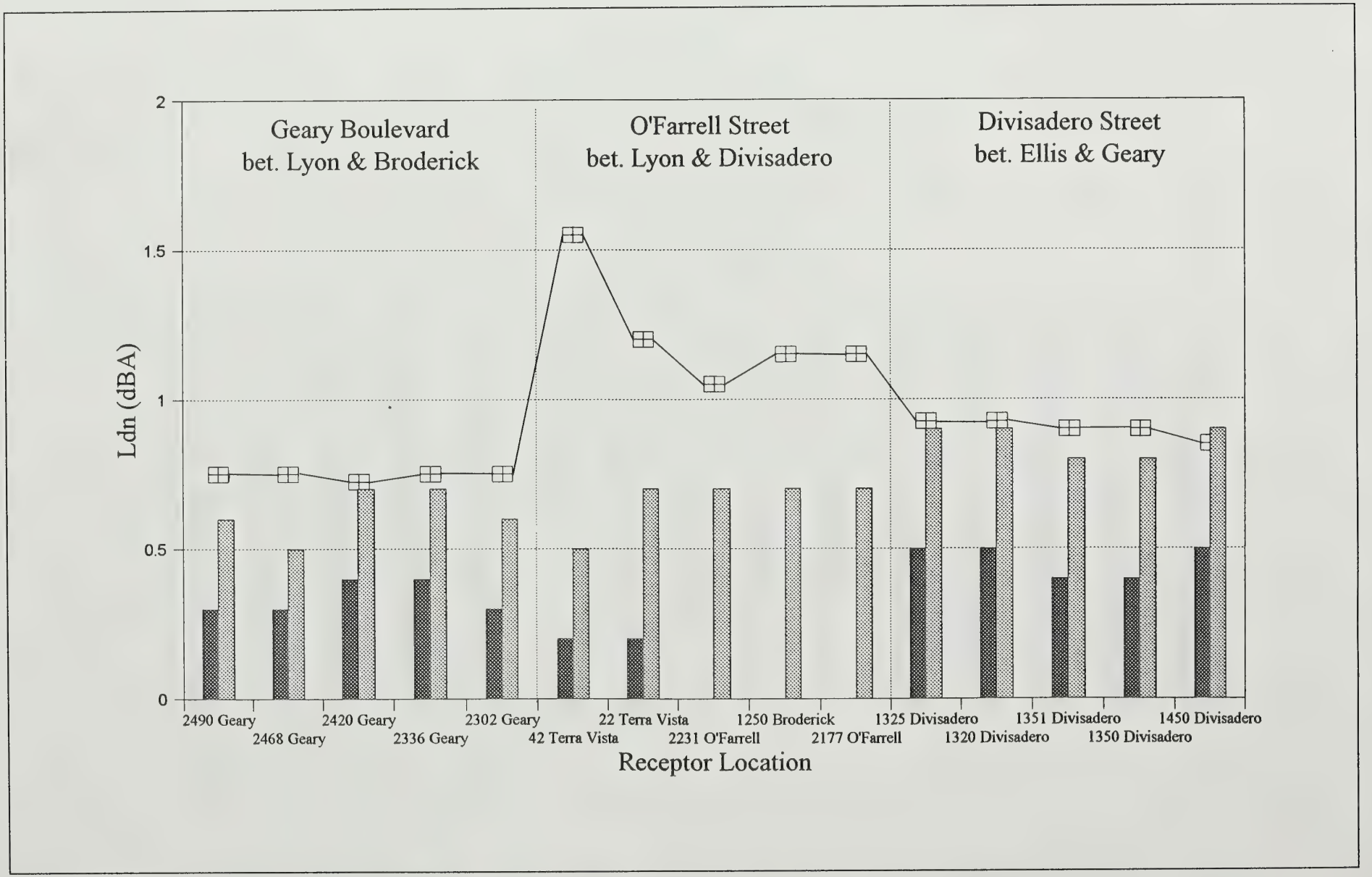
Along Geary Boulevard Between Lyon and Broderick Streets

Existing residential noise exposure is in the mid-70s dBA L_{dn}, the highest average level of the three streets modeled. If these residences were being proposed for construction now, the *San Francisco General Plan Environmental Protection Element* would require substantial noise insulation features to be included in their design. Many of the residential structures adjacent to the Geary Campus seem to lack the noise insulation features needed to assure compliance with the interior 45 dBA L_{dn} maximum required by state Title 24 regulations. Addition of the project and other cumulative traffic expected on Geary Boulevard by the year 2000 would raise the average noise level by 0.4 dBA L_{dn}. The annoyance of the adjacent population would not be increased



SOURCE: EIP Associates

Figure IV.H.1
Existing and Projected Day-Night
Average Noise Levels in the Project Area



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.H.2
Project and Cumulative Noise Increment in the Project Area

measurably with the addition of project and cumulative traffic. Therefore, there would be little, if any, additional impact from the project.

Along O'Farrell Street Between Lyon and Divisadero Streets

Existing residential noise exposure is in the mid-60s dBA L_{dn}, the lowest average level of the three streets modeled. If these residences were being proposed for construction now, the *San Francisco General Plan Environmental Protection Element* would require noise insulation features to be included in their design. Some of the residential structures adjacent to the Geary Campus seem to lack the noise insulation features needed to assure compliance with the interior 45 dBA L_{dn} maximum required by state Title 24 regulations. Addition of the project and other cumulative traffic expected on O'Farrell Street by the year 2000 would raise the average noise level by 0.1 dBA L_{dn}. The annoyance of the adjacent population would not be increased measurably. Little, if any, additional noise impact would result from the project.

Along Divisadero Street Between Ellis Street and Geary Boulevard

Existing residential noise exposure is in the high 60s to low 70s dBA L_{dn}, the median of the three streets modeled. If these residences were being proposed for construction now, the *San Francisco General Plan Environmental Protection Element* would require substantial noise insulation features to be included in their design. Many of the residential structures adjacent to the Geary Campus seem to lack the noise insulation features needed to assure compliance with the interior 45 dBA L_{dn} maximum required by state Title 24 regulations. Addition of the project and other cumulative traffic expected on Divisadero Street by the year 2000 would raise the average noise level by 0.5 dBA L_{dn}. The annoyance of the adjacent population would not be increased measurably. Therefore, the project would not have any measurable noise impact.

Year 2010

Project Stationary Equipment Noise

Nuisance noise could occur as a result of equipment operation (i.e., pumps, ventilation fans, air conditioning apparatus) installed on the proposed outpatient services buildings at Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue. Lack of project-specific data on noise from such equipment preclude quantitative analysis of equipment noise impacts. The proposed buildings would comply with Noise Ordinance requirements that equipment noise levels at the nearest residential areas be reduced to 55 dBA during the day and 50 dBA during the night.

Nuisance noise could also occur as a result of late night or early morning supply deliveries or garbage pickups associated with the outpatient services buildings. However, the delivery/pickup schedules, both internal and external, of the new facilities are expected to be similar to those of the existing facilities. Most of the new delivery trips would be internal, occurring after 7 a.m.; there would be no nocturnal deliveries. In addition, much of the delivery/pickup activity that would use the proposed Phase 2A/1455 Divisadero Street loading dock is already associated with the existing 2130 O'Farrell Street distribution center. Thus, additional night and early morning noise impacts to residents nearest the Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue loading docks would not occur.

Project and Cumulative Vehicular Noise

Year 2010 total L_{dn}s are shown, together with the existing and year 2000 values, in Figure IV.H.1, p. 387, while the project and added cumulative traffic increments to the total L_{dn}s in the year 2010 are shown in Figure IV.H.2, p. 388.

Along Geary Boulevard Between Lyon and Broderick Streets

Addition of the project and other cumulative traffic expected on Geary Boulevard by the year 2010 would raise the average noise level by 0.6 dBA L_{dn} compared to existing levels. The annoyance of the adjacent population would not increase measurably with the addition of project and cumulative traffic.

Along O'Farrell Street Between Lyon and Divisadero Streets

Addition of the project and other cumulative traffic expected on O'Farrell Street by the year 2010 would raise the average noise level by 0.6 dBA L_{dn}. The annoyance of the adjacent population would not increase measurably with the addition of project and cumulative traffic.

Along Divisadero Street Between Ellis Street and Geary Boulevard

Addition of the project and other cumulative traffic expected on Divisadero Street by the year 2010 would raise the average noise level by 0.7 to 0.9 dBA L_{dn} up from existing levels in the high 60s to low 70s dBA L_{dn} (conditionally acceptable to normally unacceptable under City and state land use compatibility criteria). The residential units at 1450 Divisadero would experience the most severe exterior noise exposure, about 72 dBA L_{dn} (normally unacceptable under City and state land use compatibility criteria), because of their close proximity to both Divisadero Street and Geary Boulevard. Each unit facing Divisadero Street has an outdoor deck setback 18 feet from curbside. The 0.9 dBA L_{dn} increase in exterior noise levels at 1450 Divisadero would be sufficient, under Federal Transit Administration (FTA) criteria, to measurably increase the proportion of people that would declare themselves "highly annoyed" with their exterior noise environment (see Table IX.G.2, p. A.85, in Appendix G. Noise). This gradual increase due to the project and cumulative traffic growth would occur over a number of years; it would not result in noise levels atypical among residential areas in San Francisco, and would be considered a less-than-significant impact.

Adverse noise impacts could also occur indoors. The residential units at 1450 Divisadero have large aluminum frame windows, with full-length sliding glass doors at the first floor level of each unit. Provision of adequate cooling and ventilation may require that some of the street-facing windows be left open at times. But even if they are closed, their large acoustically permeable surface area and, in some cases, their inability to be shut tightly, may not afford adequate protection from traffic noise. Because of the existing high ambient noise levels, the expected project and cumulative traffic noise increment (the highest of all the noise receptors modeled and the only one to exceed the FTA criteria), and the building's seeming deficiency of noise attenuation features, the proportion of 1450 Divisadero Street residents that would rate themselves in the highest annoyance category could increase measurably with the addition of project and cumulative traffic. This gradual increase due to the project and cumulative traffic growth would occur over a number of years; it would not result in noise levels atypical among residential areas in San Francisco, and would be considered a less-than-significant impact.

DEMOLITION AND CONSTRUCTION NOISE AND RESULTANT VIBRATION

The proposed project would result in sequential demolition or construction activity at the various building sites on the Kaiser Geary Campus over more than ten years. During this time, sensitive land uses on and near the site would experience noise from demolition and construction activities and vibration from the installation of shoring, during excavation, and from the passage of construction trucks. Noise from demolition or construction activity on the building sites would affect sensitive receptors with an unobstructed line-of-sight to that activity (i.e., those directly across the street from the building sites; existing structures would block further noise propagation). Vibration from excavation and shoring activities would affect adjacent sensitive receptors. Noise from heavy trucks removing debris from or hauling material to the building sites would also affect sensitive receptors adjacent to the main site access routes. After excavation is complete, no subsequent pile driving would be necessary for the new buildings (i.e., concrete slab foundations are planned) and vibration impacts should be limited to site access routes where road defects (i.e., bumps or potholes) could magnify the effects of truck pass-bys.

Measurements of noise emissions from individual pieces of construction equipment, with and without feasible noise control, as shown in Table IV.H.1, provide an indication of their individual impacts. The type, utilization schedule, and location of construction equipment maintained on-site would vary during construction. For a worst-case analysis, a subset of uncontrolled equipment types (e.g., a backhoe, a front loader, a truck, a concrete mixer, and a compressor) was assumed to operate simultaneously near the construction site boundary. The noise level from this equipment mix would exceed 87 dBA (i.e., a level exceeding current local ambient in the project site vicinity by 15 dBA or more) at receptors which are within 100 feet and have an unobstructed view of the construction site. With feasible noise control, the noise level from this equipment mix would decrease to 76 dBA, still about 5 dBA above the local ambient level, resulting in a temporary impact. See V.E. Noise, p. 494 for mitigation measures.

Estimates of project phasing, peak number of daily truck trips, truck routes, loading/unloading locations, and truck traffic hours of operation were provided by Mortenson, the project construction consultant.[1] According to data gathered during the project site survey, heavy trucks can elevate noise levels during the short time of their passage by 10 - 20 dBA over the average level, which could be especially disruptive for adjacent residents during the early morning or late at night.

Year 2000

Phase 1A/2290 Geary Boulevard

Current plans indicate that this building would take approximately 25 months for construction. Demolition, excavation, and foundation work, which require the use of equipment which would generate the most noise, would take place during the first five months of construction. The placement of shoring to stabilize the walls of the pit during excavation and foundation work would require pile driving. Holes for the shoring piles would be predrilled. This would reduce the duration and intensity of noise and vibration generated during pile placement because fewer hammer blows would be needed to drive each pile into its predrilled hole. Pile drivers operate at

TABLE IV.H.1: CONSTRUCTION EQUIPMENT NOISE LEVELS BEFORE AND AFTER MITIGATION (dBA)

Equipment Type	Noise Level at 50 Feet	
	Without Noise Control	With Feasible Noise Control[1]
Earthmoving		
Front Loaders	79	75
Backhoes	85	75
Dozers	80	75
Tractors	80	75
Scrapers	88	80
Graders	85	75
Trucks	91	75
Pavers	89	80
Materials Handling		
Concrete Mixers	85	75
Concrete Pumps	82	75
Cranes	83	75
Derricks	88	75
Stationary		
Pumps	76	75
Generators	78	75
Compressors	81	75
Impact		
Jack Hammers	88	75
Rock Drills	98	80
Pneumatic Tools	86	80
Other		
Saws	78	75
Vibrators	76	75

Note:
1. Estimated levels obtainable by selecting quieter procedures or machines and implementing noise control features requiring no major redesign or extreme cost.

Source: *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances,* Bolt, Beranek, and Newman for the US Environmental Protection Agency, December 31, 1971.

about 100 dBA (measured at a distance of 50 feet from the equipment). It would take about 20 working days to place the piles, but the actual drilling/driving duration would be no more than two and one-half hours on each of these days. During concrete pour for foundation, a maximum of 900 truck trips would enter and leave the site between 6 a.m. and 5:30 p.m. for one day (a Saturday); after that, the maximum truck trips would be 40 per day. The trucks would load/unload adjacent to the site on Geary Boulevard and Garden Street, and would access or depart this building site vicinity via Geary Boulevard and Broderick, Post and Divisadero Streets; all these streets contain residential uses.

Residential buildings on the west side of Broderick Street and on the north side of Garden Street are adjacent to the Phase 1A/2290 Geary Boulevard site. Noise from construction activity and truck deliveries would be disruptive to these residential areas. Vibrations and noise from garage excavation, and particularly the driving of shoring piles during garage excavation, though reduced by predrilling the holes for the piles, would be felt in adjacent buildings and could be annoying to occupants. Any bumps or potholes along Geary Boulevard and Broderick, Post and Divisadero Streets could be responsible for disruptive truck pass-by vibrations in adjacent residential areas.

Phase 1B/2139 O'Farrell Street

Current plans indicate that demolition and construction would take approximately eight months. Demolition of 1401-17 Divisadero and excavation and foundation work for Phase 1B/2139 O'Farrell, which require the use of heavy equipment which generates the most noise, would take place during the first two months of construction. During finishing work, a period of three months, a maximum of 14 trucks per day would enter and leave the site between 7 a.m. and 6 p.m.; during other phases, the maximum would be 12 per day. The trucks would load/unload adjacent to the site on O'Farrell Street, and would access/depart this building site via O'Farrell, Broderick, and Divisadero Streets; all of which contain residential uses.

Residential uses are directly adjacent to the Phase 1B/2139 O'Farrell Street site to the west and to the south. Noise from construction activity and truck deliveries would be disruptive to these residential areas. Any bumps or potholes along O'Farrell, Broderick, and Divisadero Streets could be responsible for short-term vibrations from trucks in adjacent residential areas.

Phase 1C/2295 Geary Boulevard

Current plans indicate that this phase would take approximately 36 months. Demolition, excavation and foundation work require the use of heavy equipment which generates the most noise and would take place during the first 13 months of construction. As with Phase 1A, holes for the shoring piles would be predrilled, reducing the duration and intensity of noise and vibration generated during their placement. Because the excavated area of this site would be larger than the Phase 1A site, it would take longer than 20 working days to place the piles, but the actual drilling/driving duration would be no more than two and one-half hours on each of these days. During concrete pour for foundation, a maximum of 900 truck trips would enter and leave the site for one day (a Saturday); this truck activity would occur between 6 a.m. and 9 p.m. During other phases, the maximum truck trips would be 50 per day between 7 a.m. and 6 p.m. The trucks would load/unload adjacent to the site on Geary Boulevard and O'Farrell Street, and would access/depart this building site vicinity via Geary Boulevard and O'Farrell Street, Divisadero Street and Webster Street, all of which contain residential uses.

Residential areas located north across Geary Boulevard and south across O'Farrell Street, are adjacent to the Phase 1C/2295 Geary Boulevard site. Impacts would be especially severe on the O'Farrell Street residences because of the street's narrow width and low background noise (relative to Geary Boulevard). Noise from construction activity and truck deliveries would be disruptive to these residential areas. Vibrations from garage excavation, and particularly from the driving of the shoring piles during garage excavation, though reduced by predrilling the holes for the piles, would be felt in adjacent buildings and could be annoying to occupants. Any bumps or potholes along Geary Boulevard and O'Farrell, Divisadero and Webster Streets could be responsible for disruptive truck pass-by vibrations in adjacent residential areas.

Year 2010

Phase 2A/1455 Divisadero Street

Current plans indicate that construction of this building would take approximately 21 months. Excavation and foundation work require the use of heavy equipment which, generate the most noise and would take place the first 4.5 months of construction. As with Phase 1A, holes for the shoring piles would be predrilled, reducing the duration and intensity of noise and vibration generated during their placement. It would take fewer than 20 working days to place the piles, but the actual drilling/driving duration would be no more than two and one-half hours on each of these days. During concrete pour for foundation, a maximum of 500 truck trips would enter and leave the site. This truck activity would occur between the hours of 6 a.m. and 4:30 p.m. for a one day period (a Saturday). During other phases, the maximum truck trips would be 36 per day between 7 a.m. and 6 p.m. The trucks would load/unload adjacent to the site on Geary Boulevard, Divisadero Street, and would approach/depart the project site vicinity via Geary Boulevard, Divisadero Street and Webster Streets, all of which contain residential use. The residential units on the east side of Divisadero Street adjacent to the Phase 2A/1455 Divisadero Street site would be the most impacted. The residential units on the east side of Divisadero Street adjacent to the Phase 2A/1455 Divisadero Street site would be the most impacted. Noise from construction activity and truck deliveries would be disruptive to these residential areas. Vibrations and noise from garage excavation, and particularly the driving of the shoring piles during garage excavation, though reduced by predrilling the holes for the piles, would be felt in adjacent buildings and could be annoying to occupants. Any bumps or potholes along Geary Boulevard and Divisadero and Webster Streets could be responsible for disruptive truck pass-by vibrations in adjacent residential areas.

Phase 2B/New 350 St. Joseph's Avenue

Current plans indicate that this phase would take approximately 19 months. Demolition, excavation and foundation work, which require the most heavy equipment (and, therefore,

generate the most noise) would occupy approximately the first five months of construction. As with Phase 1A, holes for the shoring piles would be predrilled, reducing the duration and intensity of noise and vibration generated during their placement. It would take fewer than 20 working days to place the piles; the actual drilling/driving duration would be no more than two and one-half hours on each of these days. During foundation work, a maximum of 500 trucks per day would enter and leave the site for one day (a Saturday); this truck activity would take place from 6 a.m. to 4 p.m. During other phases, the maximum truck trips would be 30 per day between 7 a.m. and 6 p.m. The trucks would load/unload adjacent to the site on Geary Boulevard, and would approach/depart the project site vicinity via Geary Boulevard and Webster Street, all of which contain residential use.

Residential areas adjacent to this site are north across Geary Boulevard and to the south across O'Farrell Street. Kaiser Hospital is across St. Joseph's Avenue to the west. Noise from construction activity and truck deliveries would be disruptive to these residential areas. Vibrations from garage excavation, and particularly the driving of the shoring piles during garage excavation, though reduced by predrilling the holes for the piles, would be felt in adjacent buildings and could be annoying to occupants. Any bumps or potholes along Geary Boulevard and O'Farrell and Webster Streets could be responsible for disruptive truck pass-by vibrations in adjacent residential areas.

NOTES - Noise

1. Mortenson Construction, project construction consultant, letter, January 29, 1996, updated April 1, 1996.

I. AIR QUALITY

OPERATIONAL AIR POLLUTANT EMISSIONS

The BAAQMD considers total net new project air pollutant emissions (i.e., from both new stationary and mobile sources) of ROG, NO_x and PM_{10} to be significant if they equal or exceed 80 lb/day.

Project Stationary Emissions

The BAAQMD has developed generalized emission factors for a number of categories of industrial and other land uses found in the San Francisco Bay Area. These factors, expressed in terms of pounds of pollutant per acre per day, were derived from information in the BAAQMD's emission inventory files. Emission factors for the land use category "General Hospitals" (i.e., ROG: 2.3 lb/acre/day; NO_x: 30 lb/acre/day; PM_{10}: 2.9 lb/acre/day) were applied to the Geary Campus (i.e., 5.6 acres) and the proposed facility site areas (i.e., 0.8 acre for Phase 1 and 0.5 acre for Phase 2). The results are shown in Table IV.I.1.

Project Vehicular Emissions

Pollutant emissions from motor vehicle trips generated by the existing and proposed Kaiser facilities on the Geary Campus were calculated with URBEMIS5, a vehicular emission model developed by the CARB. URBEMIS5 was initialized with the project-specific ADT and trip length data provided by Korve Engineering. Other model parameters (i.e., temperature, trip speed, cold start percentage) were set as recommended by the BAAQMD to reflect Bay Area-specific trip characteristics. At present, the Kaiser Geary Campus generates about 5,710 vehicular trips per day.

TABLE IV.I.1: AIR POLLUTANT EMISSIONS FROM THE KAISER GEARY CAMPUS (LB/DAY)

Source/Pollutant	Existing	Year 2000			Year 2010		
Stationary	Geary Campus	Geary Campus	Project	Net	Geary Campus	Project	Net
ROG	13	13	2	15	17	3	20
NO_x	168	168	24	192	168	39	207
PM_{10}	16	16	2	18	16	3	19
Mobile							
ROG	113	69	42	111	31	33	64
NO_x	91	66	40	106	46	48	94
PM_{10}	62	62	37	99	61	63	124
Total							
ROG	125	82	44	126	44	36	80
NO_x	259	234	64	298	214	87	301
PM_{10}	78	78	39	117	78	67	145

Note:
Stationary source emissions were calculated with BAAQMD generalized emission factors for the land use category "General Hospitals." Vehicular source emissions were calculated with URBEMIS5, a model developed by the CARB.

Source: EIP Associates.

By the year 2000, the state-average vehicular ROG and NO_x emissions per mile traveled relative to the 1995 emission rates are anticipated to decrease by about 40 percent and 25 percent, respectively, according to the latest EMFAC7F1.1 model developed by the CARB. No significant change is expected for the PM_{10} emission rate. Phase 1 expansion is expected to add about 3,620 new vehicular trips per day.

By the year 2010, the state-average vehicular ROG and NO_x emissions per mile relative to the 1995 emission rates traveled are anticipated to decrease by about 70 percent and 40 percent, respectively, according to the latest EMFAC7F1.1 model developed by the CARB. No significant change is expected for the PM_{10} emission rate. Phase 2 expansion is expected to add about 2,580 new vehicular trips per day.

The URBEMIS5 model was run for the existing Geary Campus and the proposed Kaiser facilities. The results are shown in Table IV.I.1, p. 400.

Project Total Emissions

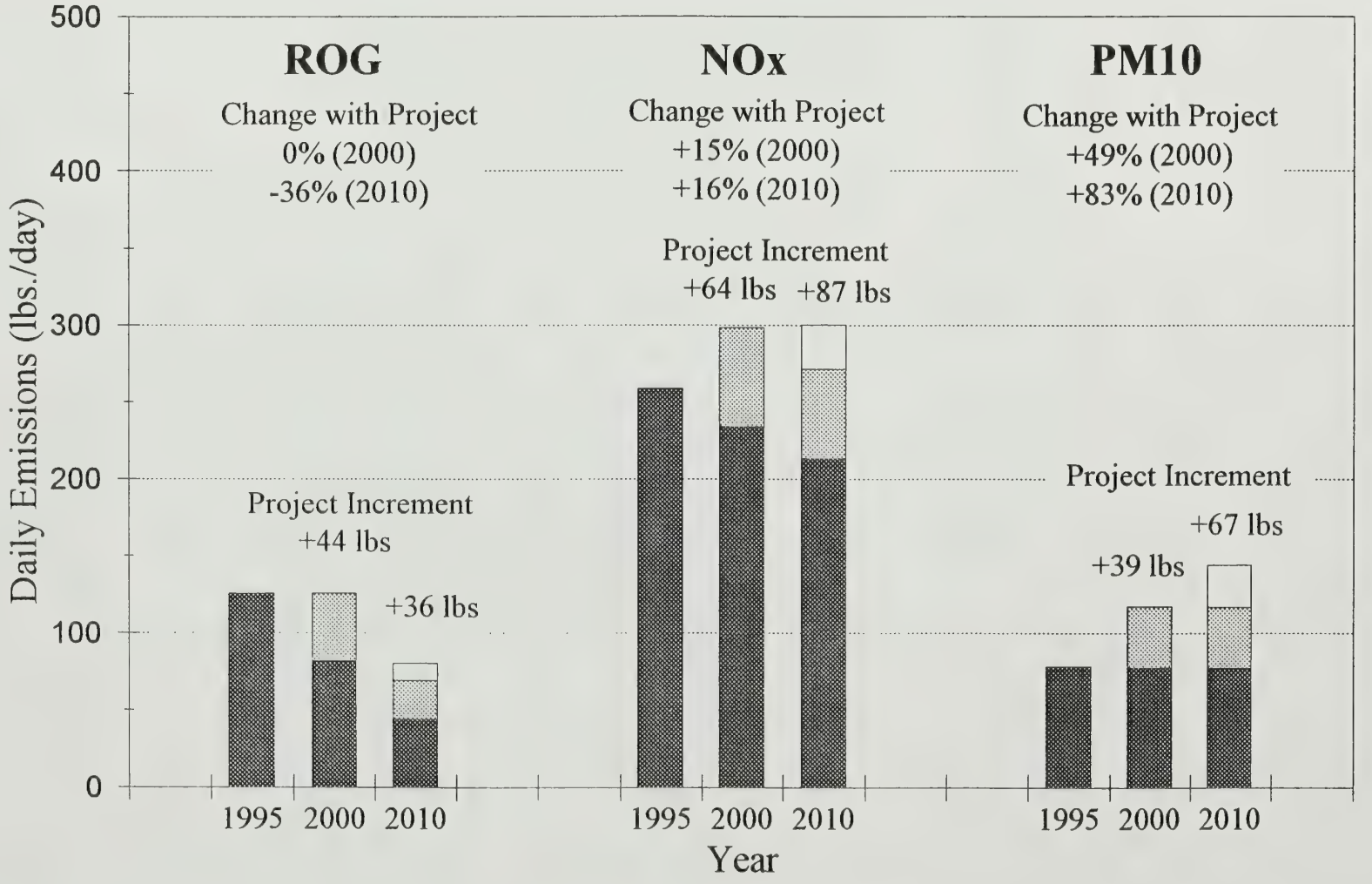
Total ROG, NO_x, and PM_{10} emissions from the existing Kaiser Geary Campus currently amount to 125 lb/day, 259 lb/day, and 78 lb/day, respectively. The total Kaiser Geary Campus emission changes, relative to 1995 emissions, and the total project emission increments added by the proposed Phase 1 and Phase 2 facilities are shown in Figure IV.I.1.

Year 2000

By the year 2000, Phase 1 would be complete. Total ROG, NO_x, and PM_{10} emissions would amount to 126 lb/day, 298 lb/day, and 117 lb/day, respectively. (See Figure IV.I.1.) Total ROG emissions are expected to remain unchanged by the year 2000 because reduced project vehicular ROG emissions brought about by CARB and BAAQMD control programs would offset the stationary source emissions increase. In contrast, the total NO_x, and PM_{10} emissions are expected to increase by 15 percent and 49 percent, respectively, by the year 2000, mainly due to increased project stationary source NO_x emissions and increased PM_{10} emissions from project vehicular travel. But no project daily pollutant emissions increments would exceed the 80 lb/day BAAQMD threshold.

Year 2010

By the year 2010, with both the proposed Phase 1 and Phase 2 expansion complete, total ROG, NO_x, and PM_{10} emissions would amount to 80 lb/day, 301 lb/day, and 145 lb/day, respectively. Total ROG emissions are expected to decline by 36 percent by the year 2010, mainly because of the strong emphasis by the CARB and BAAQMD on reducing vehicular ROG emissions.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.I.1
Existing and Projected Stationary Vehicular Emissions

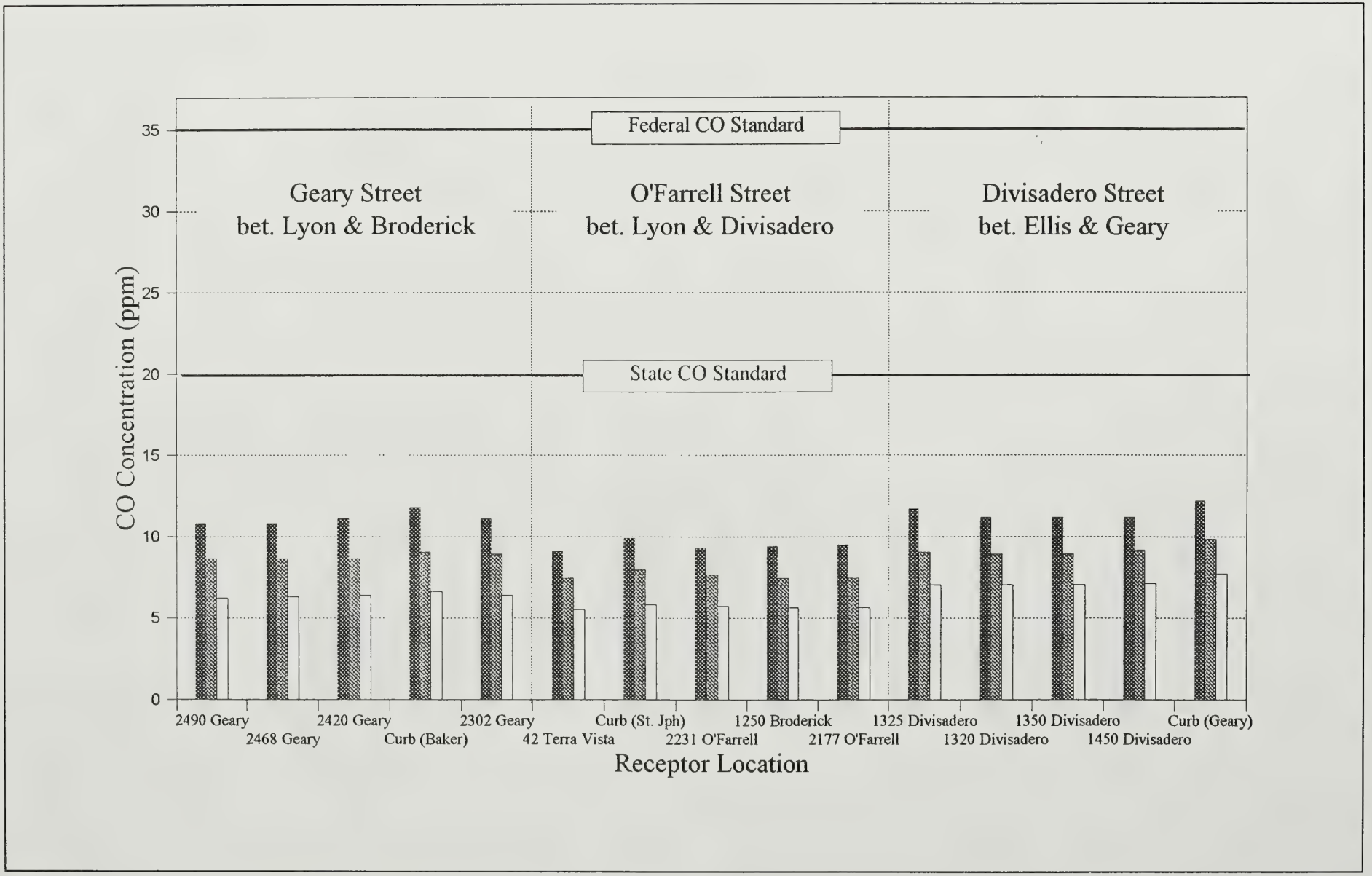
In contrast, the total NO_x and PM_{10} emissions are expected to increase by 16 percent and 83 percent, respectively, by the year 2010, mainly because of increased project stationary source NO_x emissions and increased PM_{10} emissions from project vehicular travel. The project NO_x increment in the year 2010, 87 lb/day, would exceed the 80 lb/day BAAQMD threshold. The other project pollutant increments would not exceed the BAAQMD threshold.

The additional project NO_x could interfere with the Bay Area's progress toward attainment of the state ozone standard unless Best Available Control Technology (BACT) NO_x emission controls were incorporated in the physical plants of the existing and proposed facilities, as required by BAAQMD regulations. Compliance with such regulations undertaken by Kaiser as part of the BAAQMD permitting process would reduce project stationary source impacts to an acceptable regional level, as defined by BAAQMD, although it would not necessarily bring the level of project emissions below the 80 lb/day threshold. See V.F. Mitigation Measures, p. 495, for mitigation measure to address NO_x emissions.

PROJECT AND CUMULATIVE CARBON MONOXIDE IMPACTS

CO levels were modeled, using the CALINE4 dispersion model developed by the CARB, along the major roadways (i.e., Geary Boulevard, O'Farrell Street, and Divisadero Street) adjacent to the Kaiser Geary Campus.[1] CO levels were estimated for the base year of the traffic study (1995) and for the build-out years of the two project phases, 2000 and 2010. One-hour and eight-hour average CO concentrations were estimated at measured home setback distances for residential receptors, and at sidewalk locations near intersections for pedestrian receptors, as shown in Figures IV.I.2 and IV.I.3, pp. 404 - 405.

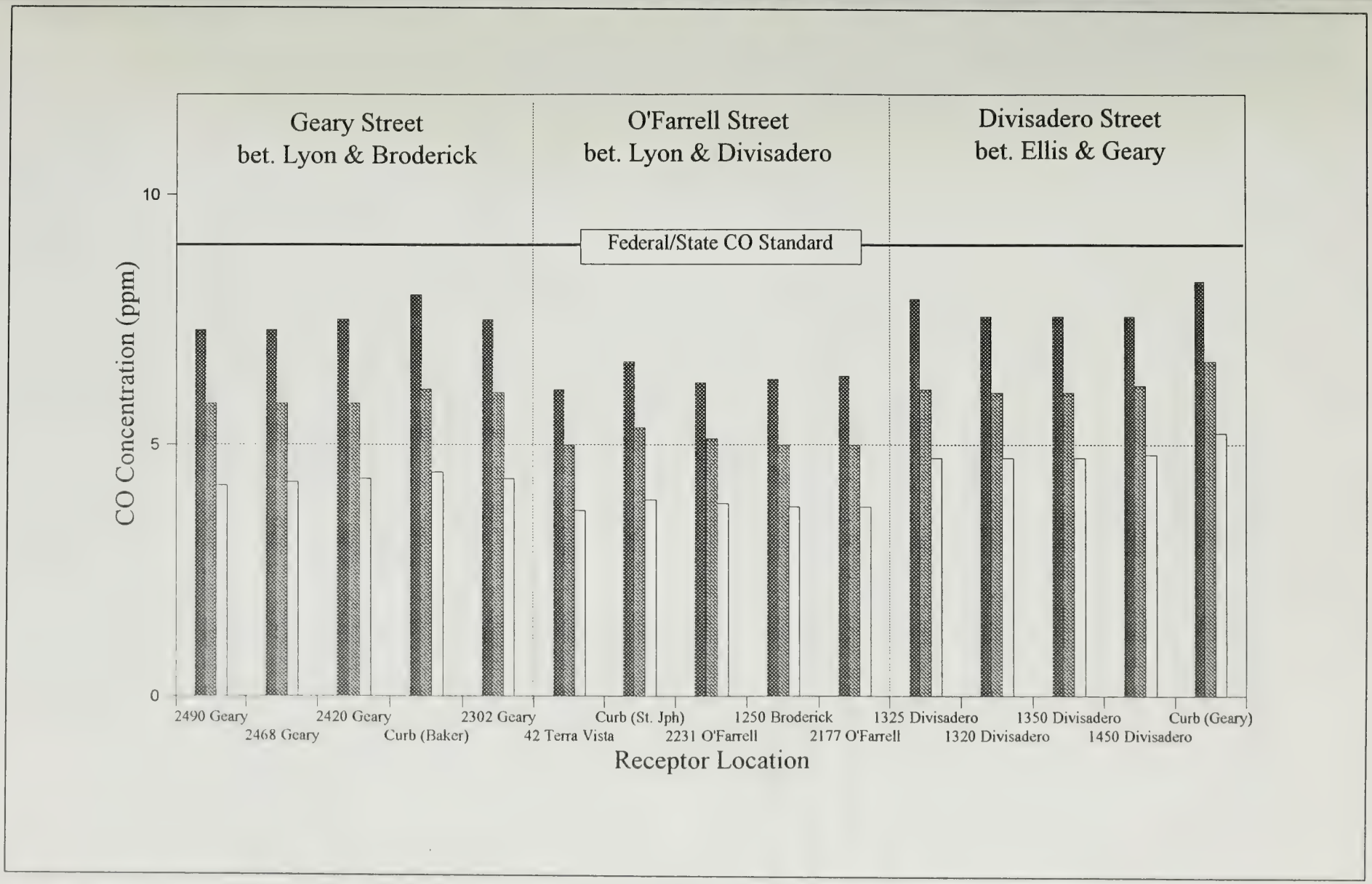
CO emissions causing or measurably contributing to violations of the federal or state ambient CO standards (i.e., federal: 35 ppm one-hour average, 9 ppm eight-hour average; state: 20 ppm one-hour average, 9 ppm eight-hour average) would be significant. "Measurable" contributions are defined as 1 ppm or more over a one-hour averaging period or 0.5 ppm or more over an eight-hour averaging period.



SOURCE: EIP Associates

SAN FRANCISCO KAISER GEARY CAMPUS PROJECT

Figure IV.I.2
Existing and Projected One-Hour Carbon Monoxide Concentrations at Selected Locations



SOURCE: EIP Associates

SAN FRANCISCO BAYSHORE CAMPUS PROJECT

Figure IV.I.3
Existing and Projected Eight-Hour Carbon Monoxide Concentrations at Selected Locations

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No existing or future violations of the CO standard are anticipated in the vicinity of the Kaiser Geary Campus.

Year 2000

No violations of the CO standard are anticipated in the vicinity of the Kaiser Geary Campus. As a result of the stringent vehicular CO emission controls expected to be implemented over the next five years, the total CO concentration at all receptors would decline. The increments to the CO concentrations due to the project would be relatively small in comparison to the background and cumulative increments. They would be highest along Divisadero Street (i.e., a maximum 0.6 ppm one-hour average at 1450 Divisadero Street) and would be less than 0.1 ppm along Geary Boulevard and O'Farrell Street.

Year 2010

No violations of the CO standard are anticipated in the vicinity of the Kaiser Geary Campus. As a result of the stringent vehicular CO emission controls expected to be implemented over the next 15 years the total CO concentration at all receptors would decline. The project increments to the CO concentrations would be relatively small in comparison to the background and cumulative increments. They would be highest along Divisadero Street (i.e., a maximum 0.2 ppm one-hour average at 1450 Divisadero Street) and would be less than 0.1 ppm along Geary Boulevard and O'Farrell Street.

DEMOLITION AND CONSTRUCTION AIR POLLUTANT EMISSIONS

USEPA measurements of dust emissions during construction indicate that about 1.2 tons of dust per month are emitted per acre of construction, about 64 percent of which is PM_{10}, a potential health threat to a sensitive population living near the construction activity. The EIR analysis of

project construction impacts follows BAAQMD recommendations in focusing effort on the development of effective and comprehensive PM_{10} control measures rather than the detailed quantification of emissions.[2] The BAAQMD does not consider construction emissions of CO and ozone precursors significant because they have already been included in their regional planning inventories and are not expected to impede regional attainment or maintenance of air quality standards.

Demolition and excavation activities, construction vehicle travel on unpaved ground, and wind blowing over exposed earth surfaces would generate PM_{10}. Such emissions and the resultant ambient concentrations near construction sites would be very sensitive to local meteorology and topography, to variations in soil silt and moisture content, and to the intensity of equipment use. Such emissions could be as high as 51 lb/acre/day for each construction site. Such emissions, as quantified below for each project construction phase, could lead to violations of federal and state ambient PM_{10} standards at the identified nearby sensitive receptors unless mitigation measures were imposed.

Year 2000

Phase 1A/2290 Geary Boulevard

The Phase 1A/2290 Geary Boulevard site is surrounded to the east, north and west by residential uses, and to the south, across Geary Boulevard, by the existing Kaiser Geary Campus, including Kaiser Hospital. Uncontrolled PM_{10} from the 0.6-acre site, amounting to as much as 31 lb/day, could be emitted during demolition of the existing on-site buildings and foundation excavation for the proposed structure. Violation of federal and state PM_{10} standards could adversely affect a sensitive population at these locations.

Phase 1B/2139 O'Farrell Street

The Phase 1B/2139 O'Farrell Street site is surrounded to the south and west by residential uses, and to the north across O'Farrell Street by the Kaiser outpatient facility. Uncontrolled PM_{10} from the 0.2-acre site, amounting to as much as 10 lb/day, could be emitted during foundation excavation for the proposed structure. Violation of federal and state PM_{10} standards could adversely affect the sensitive population at these locations.

Phase 1C/2295 Geary Boulevard

The Phase 1C/2295 Geary Boulevard site is surrounded to the north across Geary Boulevard, to the south across O'Farrell Street by residential uses, and immediately to the east and west by Kaiser outpatient facilities. Uncontrolled PM_{10} from the 1.4-acre site, amounting to as much as 71 lb/day could be emitted during demolition of the existing on-site medical office building and foundation excavation for the proposed structure. Violation of the federal and state PM_{10} standards could adversely affect a sensitive population at these locations.

Year 2010

Phase 2A/1455 Divisadero Street

The Phase 2A/1455 Divisadero Street site is surrounded to the north across Geary Boulevard and east across Divisadero Street by residential uses, and immediately to the west by the existing 2130 O'Farrell Street garage. Uncontrolled PM_{10} from the 0.5-acre site, amounting to as much as 26 lb/day, could be emitted during foundation excavation for the proposed structure. Violation of the federal and state PM_{10} standards could adversely affect a sensitive population at these locations.

Phase 2B/New 350 St. Joseph's Avenue

The Phase 2B/New 350 St. Joseph's Avenue site is surrounded to the north across Geary Boulevard and to the south across O'Farrell Street by residential uses, to the west across St. Joseph's Avenue by the existing Kaiser Hospital, and immediately to the east by Kaiser outpatient facilities. Uncontrolled PM_{10} from the 0.9-acre site, amounting to as much as 46 lb/day, could be emitted during demolition of the existing medical office building and foundation excavation for the proposed structure. Violation of the federal and state PM_{10} standards could adversely affect a sensitive population at these locations.

Mitigation measures to address temporary, potentially significant PM_{10} impacts are included in V.F. Mitigation Measures, p. 495.

NOTES - Air Quality

1. The CALINE4 model was initialized, as recommended by the BAAQMD, with meteorological parameters, CO background levels characteristic of worst-case CO dispersion conditions in the project site vicinity (i.e., one-hour averages of 8.1 ppm in 1995, 6.8 ppm in the year 2000, and 5.2 ppm in the year 2010; a persistence factor of 0.7 was used to obtain the eight-hour average backgrounds), and EMFAC7F1.1 CO emission rates for the Bay Area average vehicle fleet, and with PM peak-hour traffic data provided by Korve Engineering.

2. BAAQMD, *CEQA Guidelines; Assessing the Air Quality Impacts of Projects and Plans, Draft*, April 1996, p. 13, first paragraph.

J. HAZARDOUS MATERIALS

This section discusses the environmental impacts of the hazardous materials and waste handling operations that would be part of the project. The purpose of the project is to consolidate Kaiser's operations in San Francisco. The proposed project would include existing operations at the Geary Campus with the addition of operations relocated from French Campus and various leased spaces. Consolidation of Kaiser operations and projected increase in patient visits would result in an increase in hazardous materials used, increase in hazardous wastes generated, and expansion and relocation of operations that use hazardous materials at Kaiser Geary Campus. Different phases of the proposed project would involve development of different portions of the campus. This would lead to changes in the quantities of hazardous materials used and hazardous waste generated with the operation of each phase of the project. While the quantities of specific hazardous materials and hence, the levels of concern would vary during the different phases, the types of impacts expected would be consistent.

YEAR 2000

During this phase the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings would be constructed. Kaiser would continue to use the 2350 Geary Boulevard building for outpatient services and to operate the parking garage at 2130 O'Farrell Street until the year 2000. The existing use of hazardous materials in these buildings, as discussed in III.J. Hazardous Materials, pp. 202 - 205, would continue. The existing use at the 2200 O'Farrell Street building would continue in the new buildings constructed during Phase 1. In addition, in the process of consolidation Kaiser would move its operation from 350 St. Joseph's Avenue, French Campus and various leased spaces to Phase 1 buildings. The only leased space where Kaiser uses hazardous materials is the building at 1635 Divisadero Street. Kaiser forecasts an approximate increase of 10 percent in the patient visits to each department providing patient services at all current locations by the year 2000, resulting in an annual increase in hazardous materials use in patient diagnosis and treatment.

Hazardous Materials

The increase in use of hazardous materials would involve increase of hazardous chemicals (non-radioactive) and biohazardous materials. Impacts due to increased use of each of these is discussed below.

Hazardous Chemicals

The consolidation of Kaiser operations and projected increase in patient visits would increase hazardous chemicals use at the Geary Campus. The projected increase is provided in Table IV.J.1. The annual increase in the use of hazardous chemicals in the proposed project area due to outpatient services by the year 2000 would be approximately 29,000 gallons of liquid, 31,000 cubic feet of compressed gases, and 5,000 pounds of solid chemicals.

Various chemicals pose different levels of hazards in their use. Some substances, such as gasoline or hexane, are flammable. Others, like cyanides or mercuric chloride, can be toxic. Some non-radioactive chemicals have the potential for causing cancer or acute and chronic illnesses. The properties and health effects of chemical substances are unique to the individual materials, although they often can be grouped by chemical types. No classifications exist to rate the level of hazard posed by all substances under all circumstances. While some substances may present little potential for hazard, others may be capable, in certain situations, of causing severe health effects.

Chemicals would be segregated according to their hazard class and treated with specific storage and handling procedures. Corrosive materials and poison gas cylinders would not be stored with oxidizers, organic peroxides, or flammable materials. Flammable liquids would be stored in cabinets approved by the National Fire Protection Association or in specially designed refrigerators. Storage of closed containers of hazardous materials would not pose health or safety hazards except for hazards associated with potential accidents.

TABLE IV.J.1: PROJECTED INCREASE IN HAZARDOUS CHEMICALS USE AT KAISER GEARY CAMPUS, EXCLUDING THE HOSPITAL

Year 2000 and Year 2010

	Existing Annual Use[1]	Increase in Existing Use by Year 2000 at Geary Campus[2]	Operations Transferred from French Campus	Operations Transferred from Leased Spaces[3]	Total Increase in Year 2000[2]	Total Use at Geary Campus in Year 2000	Total Increase in Year 2010[4]	Total Use at Geary Campus in Year 2010
Gallons	20,000	2,000	26,200	230	28,430	48,430	7,506	55,936
Cubic Feet	8,414	840	27,500	2,500	30,840	39,254	6,085	45,339
Pounds	276	28	4,800	24	4,852	5,128	795	5,923

Notes:

1. The quantities were obtained from Disclosure Forms for 2200 O'Farrell Street, 2130 O'Farrell Street and 2350 Geary Boulevard.
2. The total increase for the year 2000 takes into account Kaiser's forecast of approximately 10 percent increase in patient visits to all departments providing patient services from 1995 to 2000.
3. The quantities were obtained from Disclosure Forms for 1635 Divisadero Street.
4. The total increase for the year 2010 takes into account Kaiser's forecast of approximately 27 percent increase in patient visits to all departments providing patient services from 1995 to 2010.

Source: Kaiser Permanente Medical Center, San Francisco.

Kaiser policies and procedures address the procurement, handling, and disposal of carcinogenic, volatile, flammable, and explosive substances. Kaiser Safety Office is charged with implementing measures, directly and through Kaiser departments, designed to ensure compliance with applicable laws and regulations and to impose Kaiser policies to further reduce the potential for human harm.

The effects of hazardous materials use would generally be limited to the immediate areas where the materials are stored and used. For this reason, the individuals most at risk would be the proposed project site occupants or Kaiser employees. Routes for exposure to hazardous chemicals include inhalation, skin contact, ingestion, and cuts. To minimize exposure to chemicals in the air, Kaiser provides training to employees in the safe handling of hazardous materials. Employees would take standard procedural precautions, such as working under fume hoods, when using chemicals likely to present exposure hazards. Proper use of the fume hoods and other engineering controls would keep indoor laboratory air toxics concentrations below the suggested guidelines of the American Conference of Governmental Industrial Hygienists Threshold Limit Values and the legal limits of the OSHA Permissible Exposure Levels.

To prevent exposure through skin contact, Kaiser policy requires that protective clothing, such as laboratory coats, gloves, and safety glasses be worn while handling hazardous materials. Proper washing after handling chemicals is also required. To prevent the potential ingestion of chemicals, Kaiser prohibits eating, drinking, and smoking in pharmacies, laboratories, and other areas where hazardous chemicals are used. During training these policies would be explained to all staff who work with hazardous materials.

Kaiser is required to comply with health and safety and environmental protection laws and regulations. Review of Kaiser files indicate that Kaiser corrected deficiencies noted by its Safety Officer, Cal-OSHA and other City agencies during regular health and safety inspections, and has responded to the Cal-OSHA and Safety Officer's advice on corrective actions. These procedures, intended to protect the health and safety of Kaiser employees, would be followed at the proposed project. The health and safety procedures protecting the workers would also protect the community in the project vicinity.

Because the potential for incidents related to hazardous materials at Kaiser would be directly related to hazardous materials activities, the number of future Kaiser-related incidents would be expected to rise with increased hazardous materials use, storage, and transport about the site. Hazardous materials emergency response services are an important tool in minimizing the possible consequences of hazardous materials incident. Kaiser's Emergency Response Plan would address the proper response to the various emergencies that may occur at Kaiser. Kaiser's emergency response team and the San Francisco Fire Department would be trained to respond to hazardous materials incidents.

Most hazardous materials storage at Kaiser would present little risk of upset. With the project there would be an increase in the storage amount at the Geary Campus. The increase in storage of hazardous materials would include approximately 21,000 gallons of liquid, 24,500 cubic feet of compressed gases, and 1,200 pounds of solid chemicals. The materials would generally be stored in small, individual containers of a few gallons or less, therefore, consequences of probable accidents during the lifetime of the project in the storage areas would probably not be severe.

Accidents during hazardous materials use would be much more likely than during hazardous materials storage. Such accidents would be likely to occur during the lifetime of the project. Most employees would work with relatively small volumes of hazardous materials at any one time, minimizing the potential consequences of an accident during handling. Review of OSHA Log 200 forms indicates no injury or illnesses due to exposure to hazardous materials during 1993 and 1994 (see Table IX.I.6, p. A.107, in Appendix I). Kaiser would continue to take legally required steps to minimize the consequences of hazardous materials accidents; for example, Kaiser employees would wear appropriate protective equipment while working with hazardous materials and safety equipment would be available in all areas where hazardous materials are used.

There may be an increase in the potential for exposure due to the increase in use of hazardous chemicals at the Geary Campus associated with the consolidation of Kaiser operations and projected increase in patient visits. Kaiser would continue to implement their current procedures for proper handling, storage and transport of hazardous materials and emergency response

services to ensure compliance with applicable laws and regulations to minimize potential exposure to hazardous chemicals . There are existing safety plans and procedures, and in-service training for Kaiser employees for reducing the potential for human harm due to the increased usage of hazardous materials. The status of compliance with regulatory requirements would be routinely checked to ensure safe usage of increased quantities of hazardous chemicals.

In addition to using and storing hazardous materials, Kaiser employees would transport hazardous materials among Kaiser facilities, between and within buildings, from room to room, through hallways, and up and down stairwells and elevators. Accidents could occur as materials are moved about the facility. Project implementation would increase the amount of hazardous materials transported. Facility design features would affect the probability and consequences of such an accident. Design features that include uneven surfaces, such as raised thresholds at doorways, can increase the possibility of accidents. In areas without adequate ventilation, vapors from released volatile materials could be trapped in stagnant air pockets causing health hazards to people entering these areas. Specific building design features could reduce the risk of such accidents.

Kaiser currently has programs which would address the safety issues caused by the increase in use of hazardous chemicals for compliance with the applicable laws and regulations. Such efforts would include specific steps aimed at improving health and safety conditions to ensure compliance with laws and regulations regarding the use of hazardous materials. The Kaiser Safety Office is responsible for implementing measures, directly and through Kaiser departments, designed to ensure compliance with applicable laws and regulations through routine monitoring and in-service training. Specific actions would include implementing Community Right-to-Know and Business Plan requirements, and supplementing the existing program for the purpose of meeting current and future local, state, and federal data reporting requirements. These actions would allow better tracking and reporting of chemical hazardous materials at Kaiser facilities, would provide critical information to emergency response service providers in case of a chemical emergency, and would expand current safety training programs to minimize accident risks.

Kaiser intends to continue to improve existing health and safety plans to better address the increased use and storage of hazardous materials and to assure that these plans are adequately implemented and maintained, including training and emergency planning. Kaiser intends to improve its self-audit mechanism and reporting system to document the compliance status of Kaiser departments.

Biohazardous Materials

The project would result in an increase in use of biohazardous materials in Phase 1 buildings. Since data on quantities of biohazardous materials used are not available it is difficult to quantify the expected increase due to relocation of patient services from French Campus and leased spaces. There would, however, be approximately a 10 percent increase in use of biohazardous materials due to the expected increase in patient visits by the end of Phase1.

Kaiser employees could be exposed to infectious or other biohazardous materials through inhalation, cuts, ingestion or mucous membrane exposure through eye or nose contact. Kaiser's health and safety practices address exposure pathways by providing training for its employees to prepare them to work safely. Kaiser would provide safety equipment for protection from biohazardous material exposure. Good hygiene measures such as washing hands after use of biohazardous materials; not eating, drinking, or smoking in work areas; and keeping work areas clean would be followed. Protective equipment would be worn as appropriate. Such standard safety procedures would protect employees from exposure to biohazardous materials.

The biohazardous materials could also affect the environment or individuals off-site through various pathways including personal contact, transport to or from the site, and air emissions. Kaiser employees would follow standard hygiene practices to avoid carrying biohazardous materials off-site on their skin or clothing. Protective clothing, such as laboratory coats and gloves, would be left at work. Transport of biohazardous materials to or from the site would be in compliance with legal requirements. The shipping packages for such materials require absorbent material, double-containment, water-proof seals, and biohazard labels. Exposure

through air emissions would be controlled by using biosafety cabinets and other containment devices that filter aerosols and particles from the air.

Kaiser maintains a Biosafety Manual following the requirements of the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institutes of Health. The Biosafety Manual includes the Injury and Illness Prevention Plan focusing on minimizing skin penetration incidents and other exposure to biohazardous materials. The manual also emphasizes the use of personal protective equipment. The Biosafety Manual would be extended to the project.

Kaiser would continue to monitor and conduct in-service training for its employees in the proper handling of increased quantities of biohazardous materials to reduce potential exposure. The safety policies and procedures would address the measures necessary to handle the increased quantities of biohazardous materials at the Geary Campus to reduce potential health hazards to Kaiser staff and the community. The status of compliance with regulatory requirements would be routinely checked to ensure safe handling of increased biohazardous materials.

Hazardous Waste

The increase in use of hazardous materials due to the consolidation of Kaiser operations and projected increase in patient visits would result in increased generation of hazardous wastes. The increased generation of hazardous wastes would include hazardous chemical waste (non-radioactive) and biohazardous waste. Impacts due to increased generation of each of these is discussed below.

Hazardous Chemical Waste

The project would increase the generation of hazardous chemical waste generated in the project area. Table IX.I.7, p. A.108, of Appendix I. Hazardous Materials, shows the quantities of

hazardous waste generated at the French Campus during the year 1994. Since the operations at French Campus would move to the project site, there would be an increase in the hazardous chemical waste generated at the Geary Campus. The projected increase in the generation of hazardous chemical waste is presented in Table IV.J.2.

General types of hazardous chemical wastes include spent solvents from laboratories, discarded laboratory reagents and reaction products, unused paints and oils, and contaminated materials such as gloves and containers. Each department would be responsible for identifying, storing and properly labeling hazardous waste generated by their department. In addition, departments would be responsible for transporting their hazardous waste to the central hazardous waste storage container located at the first level of each bulding. The Environmental Health and Safety Department would ensure adequate training of Kaiser staff on proper labeling, storing, transport, spill clean-up and record keeping requirements for hazardous waste. The Engineering Department would provide access to the central hazardous waste storage container and ensure proper documentation of the wastes transported. The Engineering Department would also ensure proper maintenance of spill clean-up materials, fire extinguishers, alarms and other emergency materials within the central hazardous waste storage container.

The Safety Office would maintain all records required by the regulatory agencies related to the generation and disposal of hazardous waste. The Safety Office would review for accuracy and sign each hazardous waste manifest for Kaiser facilities. In addition, the Safety office would conduct weekly inspections of central hazardous waste storage containers, maintain an inventory of hazardous wastes generated and schedule pick-ups with hazardous waste haulers.

The handling of increased quantities of hazardous chemical waste at the Geary Campus, excluding the Hospital, would increase potential for exposure. Proper handling of the hazardous chemical waste and implementation of the handling of the hazardous chemical waste and implementation of the health and safety procedures would be required to reduce potential health impacts.

TABLE IV.J.2: PROJECTED HAZARDOUS CHEMICAL WASTE GENERATION AT GEARY CAMPUS EXCLUDING KAISER HOSPITAL

Year 2000 and Year 2010

	Existing Generation at Geary Campus	Increase in Existing Generation at Geary Campus[3]	Transfer of Operations from French Campus	Increase in Year 2000[1]	Total in Year 2000	Increase in Year 2010[2]	Total in Year 2010
Hazardous waste, solid	420 lbs.	42 lbs.	7 lbs.	49 lbs.	469 lbs.	73 lbs.	542 lbs.
Hazardous waste, liquid	6,278 gal.	628 gal.	2,190 gal.	2,818 gal.	9,096 gal.	1,410 gal.	10,506 gal.
Flammable waste, liquid	650 lbs.	65 lbs.	737 lbs.	802 lbs.	1,452 lbs.	225 lbs.	1,677 lbs.
Poisonous waste	616 lbs.	62 lbs.	6 lbs.	68 lbs.	684 lbs.	106 lbs.	790 lbs.
Other waste	7,365 lbs.	737 lbs.	28 lbs.	765 lbs.	8,130 lbs.	1,260 lbs.	9,390 lbs.

Notes:
lbs.: pounds
gal.: gallons

1. The total increase for the year 2000 takes into account of approximately 10 percent increase in patients visit to all departments providing patient services by 2000.
2. The total increase for the year 2010 takes into account of approximately 27 percent increase in patients visit to all departments providing patient services by 2010.
3. The hazardous waste generated at Geary Campus, including the Kaiser hospital, in the year 1994 was used to estimate the projected increase.

Source: Manifest Records, Safety Office, Kaiser Permanente Medical Center, San Francisco

The project would increase the amount of hazardous waste transported from Kaiser facilities. The relative increase in hazardous waste transportation would be the same as the increase in hazardous materials use and hazardous waste generated. The probability of an accident in transport is low. Hazardous waste would be picked up every 90 days by a licensed hazardous waste hauler who would meet the U.S. Department of Transportation requirements. Although the transportation of hazardous waste has potential for spill or leaks, appropriate management of transported wastes in compliance with applicable laws and regulations found in the Code of Federal Regulations, Title 49 would minimize potential hazards. Because outbound hazardous waste shipments would be packaged according to U.S. Department of Transportation and U.S. Postal Service specifications, the consequences of the unlikely accidents involving hazardous waste in transport would be expected to be minimal.

Accidents may occur during waste storage or waste handling. Handling and storage of closed containers provides little or no opportunity for accidents such as an off-site hazardous materials leak.

The process of consolidating wastes for off-site shipment and waste treatment sometimes result in accidents due to mixing of incompatible materials. These activities, although they pose a potential for health hazards, are environmentally desirable as they reduce the number and volume of containers of hazardous waste generated and shipped off-site for disposal. Kaiser policies and procedures for safe handling of hazardous waste would reduce the potential for such hazards.

To control hazardous chemical wastes, Kaiser would update its existing Hazardous Waste Minimization Plan, implement the revised plan, and continue to evaluate the feasibility of other waste minimization programs such as waste minimization through treatment and recycling. The result would be a gradual reduction in the volume of waste produced by Kaiser facilities. Kaiser would investigate potential on-site treatment options, and would provide its Hazardous Waste Minimization Plan to the City and County of San Francisco, Department of Public Health. Kaiser would continue to improve operational controls, including regular safety and compliance audits and improved training at the facility. This would allow faster processing of wastes for

shipment to treatment facilities or disposal, reducing the time hazardous chemical wastes are on site, and ensure that safety controls such as OSHA training, correct practices, and safety equipment are in place.

Biohazardous/Medical Waste

Consolidation of Kaiser operations and projected increase in patient visits would result in generation of more medical waste. There would be an increase of approximately 9,000 pounds of medical waste per month at the Geary Campus, excluding the Hospital. This increase includes the changes due to relocation of the operations from French Campus and from the leased space at 1635 Divisadero Street to the Geary Campus and the expected 10 percent increase in patient visits.

Medical waste generated at Kaiser is disposed of by one of the following three procedures:

- transported off-site by licensed transporter;
- steam sterilized on site and then transported off-site by a licensed transporter; or
- isolyzed by Sharps Management System.

Transportation, storage and treatment of medical waste would have similar potential for exposure due to hazardous chemical waste.

Kaiser would continue to improve operational controls for safe handling of the increased quantities of biohazardous/medical waste. This would allow faster processing of wastes and ensure that safety controls such as OSHA training, correct practices, and safety equipment are in place as required by applicable laws and regulations.

Relocation of Kaiser Facilities

During Phase1, buildings on the Phase 1A/2290 Geary Boulevard site and Phase 1C/2295 Geary Boulevard site would be demolished. The French Campus would be used to meet the additional outpatient services needs during the development of the Geary Campus. Once the Phase 1 buildings are complete, the services would be relocated from the French Campus and leased space at 1635 Divisadero Street to the expanded Geary Campus. During the move, there would be transportation of hazardous materials between French Campus and Geary Campus. Impacts due to transportation of hazardous materials are discussed above.

Phase 1 development would also involve demolition of buildings where hazardous materials are currently being used, for example, the building at 2200 O'Farrell Street. The demolition of the building could pose potential health hazards to construction and demolition personnel unless the facilities within the building are properly decontaminated prior to demolition. All equipment would be required to be sanitized before being transported to a different location. All biosafety cabinets, laboratory fume hoods, and work areas would be decontaminated. Impacts due to structural contamination, including asbestos, polychlorinated biphenyls, and lead-based paint, in the buildings to be demolished are discussed in IV.P. Contaminated Soils and Hazardous Wastes, p. 474 - 479.

During the development period of Phase 1, there would be an increased use of hazardous materials and, proportionally, increased generation of hazardous waste at the French Campus. The impacts due to increased use of hazardous materials and generation of hazardous waste are discussed above. At the end of Phase 1, the hazardous materials use at the French Campus and at 1635 Divisadero Street due to Kaiser outpatient services would be eliminated. Generation of hazardous waste at the two locations would also be eliminated. This would eliminate any potential hazard due to use, transportation, and possible accidental release of hazardous materials to the community in those areas.

YEAR 2010

During Phase 2A/1455 Divisadero Street of the project, a new outpatient services building would be constructed at 1455 Divisadero Street. There is no existing use of hazardous materials at 1401-17 Divisadero Street; construction of Phase 2A/1455 Divisadero Street building would increase the use of hazardous materials. Kaiser is anticipating an increase in patient visits by 27 percent by the year 2010. This projected increase in use of hazardous chemicals is presented in Table IV.J.1, p. 412. There would be a proportional increase in the generation of hazardous waste; the projected increase in generation of hazardous waste at the Geary Campus, excluding the Hospital, is presented in Table IV.J.2, p. 419. The impacts due to increase in use of hazardous materials and generation of hazardous waste are discussed above.

As discussed in III.J. Hazardous Materials, p. 203, hazardous materials are currently being used at the existing building at 350 St. Joseph's Avenue. This building would be demolished and the use of hazardous materials would be eliminated. The newly constructed Phase 2B/New 350 St. Joseph's Avenue building would be used for ancillary services and administrative support, resulting in a decrease in hazardous materials used and hazardous waste generated at the Phase 2B/New 350 St. Joseph's Avenue site. This would reduce the potential for exposure due to use, transportation, and probable accidental release of hazardous materials to the community at this project site. The demolition of the building could pose a potential for health hazard to construction and demolition personnel unless the facilities within the building are properly decontaminated prior to demolition, as discussed above.

K. UTILITIES AND COMMUNITY SERVICES

FIRE PROTECTION

Year 2000

The Phase 1 buildings would be entirely within the service area of the San Francisco Fire Department (SFFD). If the SFFD receives a call from the Geary Campus, first response to the Geary Campus (and surrounding areas) would be provided by Station 10, which houses one truck company and one engine company, and is located approximately four blocks west of the Geary Campus on Presidio between Pine and Bush Streets. The second responding station to the Geary Campus would be Station 21, which houses one engine company, and is located on Grove Street between Baker and Broderick Streets. The third responding station would be Station 5 which houses one engine company and one truck company, and is located on Turk Street at Webster Street.

For a first-alarm fire call, the SFFD would normally respond by sending out three engine companies, two truck companies, two fire chiefs, and a rescue squad. Response to second-alarm fires would include four more engine companies, one additional truck company, one additional rescue squad, and two additional fire chiefs. For higher alarm fires, more companies would be sent out as available.

The minimum acceptable response time to fire calls from the time of the call is about five minutes. The average response time to the Geary Campus is currently about three minutes. According to the SFFD, the project would not cause a change in response time to the Geary Campus, and the SFFD would be able to serve the project using existing manpower resources and fire stations and would not need additional fire-fighting equipment or fire stations to serve the proposed outpatient services and administrative buildings.[1]

In the vicinity of the Geary Campus, water availability for fire-fighting is considered plentiful by the SFFD because of adequate low-pressure and high-pressure hydrants.[2] One high-pressure fire

hydrant is at the corner of Geary and Divisadero Streets, and another is at the southeast corner of Divisadero and O'Farrell Streets.[3] The Fire Prevention Division of the SFFD would review building plans when they are available and would ensure that structures would not be constructed without adequate water supply infrastructure for fire-fighting. In addition, the SFFD would ensure that new buildings would meet California Fire Code and Uniform Building Code requirements and would provide adequate interior fire prevention and suppression systems.

For emergencies such as hazardous materials leaks, a normal fire response for a first-alarm fire would be put into action. All fire-fighters are trained in handling minor hazardous materials incidents. However, if the Incident Commander at the scene determines that the situation is more serious, then the Incident Commander would request response from SFFD's special Hazardous Materials Response Unit.[4] As described in III.K. Utilities and Community Services, pp. 212 - 213, the Geary Campus has not required the services of the SFFD Hazardous Materials Response Unit during the past 15 years.

As described in IV. J. Hazardous Materials, p. 411, Kaiser would increase its use of hazardous materials by the year 2000, and the number of hazardous-materials-related incidents would be expected to rise due to increased use, storage, and transport within the Geary Campus. As discussed in IV.J. Hazardous Materials, p. 414, hazardous materials use and storage would present little risk of upset because of the limited quantities in use, and Kaiser would continue to train its emergency response team to respond appropriately to hazardous materials incidents and would continue to comply with state and federal laws related to hazardous materials use, storage, and transport. Accidents during transport of hazardous materials could increase if facility design features do not adequately avoid hazards and could result in increased service requests of the SFFD Hazardous Materials Response Unit.

Year 2010

By the year 2010, construction of the Phase 2A/1455 Divisadero Street outpatient services building and Phase 2B/New 350 St. Joseph's Avenue administration building would be

completed. The effects of the Phase 2 development on fire protection in the year 2010 would be similar to those in the year 2000. The same fire stations would respond and the order of dispatch would be the same for the year 2010 buildings. As discussed in IV.J. Hazardous Materials, p. 423, an increase in hazardous materials use would occur at Phase 2A/1455 Divisadero Street that would involve the same risk of accidents during transport of hazardous materials as at other Geary Campus facilities which would use hazardous materials. The increase in risk would not be substantial.

POLICE PROTECTION

Year 2000

Phase 1A/2290 Geary Boulevard north of Geary Boulevard would be in the Richmond District of the San Francisco Police Department (SFPD). Phase 1B/2139 O'Farrell Street and Phase 1C/2295 Geary Boulevard would be in the Park District. All sites are within a one-block radius of an area that experiences a high incidence of crime that includes drug sales, street robberies, and auto burglaries.[5] The proposed building developments could experience a similar level and types of crime. The SFPD has indicated that it would be able to serve the project with existing resources and that the project would not require the SFPD to augment existing manpower or other resources, including patrol cars and police stations.[6]

Kaiser would extend its security patrol and operations to the Phase 1A/2290 Geary Boulevard and 1C/2295 Geary Boulevard outpatient services buildings, with similar hours of operation.[7] Kaiser's security personnel would observe and report any incidents to a security operations center at the Geary Campus and to the SFPD. Staff at the security operations center would monitor activities occurring throughout the Geary Campus via closed-circuit television, and would provide security escorts when requested. Private security within the entire Geary Campus would consist of vehicle patrol, external foot officers, and internal roving officers focusing on Kaiser properties. Stationary and roving posts would continue into evening hours. Between the hours of 8 p.m. and 6 a.m., seven days a week, access control would be put into effect around the

perimeter of the Geary Campus. The only building open 24 hours is the Hospital at 2425 Geary, which would not be altered by the proposed project. Clinic buildings would be generally open from 6 a.m. to 10 p.m. with most visitors arriving during normal business hours, about 8 a.m. to 6 p.m.

The electronic security system would be similar to the existing system. Components would likely include, but would not be limited to, perimeter door alarms, proximity card readers, motion detectors, break glass detectors, help buttons (panic alarms), direct dial (ring down) phones, internal and external cameras, and egress switches. Kaiser also participates and cooperates with members of a security task force consisting of UCSF/Mount Zion, local merchants, property owners and the SFPD.

Year 2010

Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue would be south of Geary Boulevard in the Park District of the SFPD. Like the Phase 1B/2139 O'Farrell and Phase 1C/2295 Geary Boulevard buildings, the Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's buildings could experience crimes such as street robberies and auto burglaries. The SFPD would continue to patrol this area and would continue to provide police protection services at the same level, using the same resources. The SFPD does not anticipate the need to seek out additional patrol cars to serve the project or establish additional police substations in the area. The same Kaiser security operations would be extended to the Phase 2 buildings.

SOLID WASTE

Year 2000

A solid waste generation study conducted by the City estimated that the amount generated by the City in the year 2000 would be about 982,000 tons and that approximately 51 percent would

be diverted, leaving 48 percent, or 477,000 tons for disposal at the Altamont Landfill. The Phase 1 buildings would generate approximately 9,230 pounds per day, or about 1,680 tons per year of solid waste in the year 2000 representing an increase of about 111 percent of the amount currently generated. Assuming that about 51 percent would be diverted from the waste stream for recycling, approximately 830 tons per year would need landfill disposal in the year 2000. This would represent about 0.17 percent of the amount that would be sent in the year 2000 for landfill disposal from citywide sources. As discussed in III.K. Utilities and Community Services, p. 214, San Francisco expects to have sufficient capacity at the Altamont Landfill for additional waste up to the year 2017.

Various construction phases (demolition, excavation, and construction) of the new buildings would also generate solid waste in the form of demolition debris, excavation spoils, and construction waste. This type of waste is not defined as refuse, would not be collected by the hauler that normally serves the Geary Campus, and would not be sent to the Altamont Landfill for disposal. Contractors would dispose of construction waste and other materials by contracting with other licensed haulers. Normally, a construction company would have several subcontractors, including demolition and excavation subcontractors. These subcontractors would determine the cost-effectiveness of recycling the demolition waste by having it sold to a recycling company, or having the material hauled away to a landfill where a disposal fee would be charged. Recycling of these materials would be ensured only if there is a contract provision that stipulates a recycling requirement. Materials may be evaluated for reuse, which would divert materials from landfill space.

A total of about 208,000 cubic yards of soil could be produced from excavation for the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard sites (see IV.N. Soils, Geology, and Seismicity, pp. 446 - 448) No excavated soil would be hauled to Altamont; the excavation subcontractor would determine whether the soil would be sold to a recycling company for reuse as backfill or to a landfill that is licensed for disposal of excavated soil that is unsuitable for reuse.

Year 2010

The planning period for the City's solid waste generation study covers up to the year 2005 and does not include the year 2010. Based on the state requirement that cities must divert 50 percent of their solid waste stream by the year 2000, it is assumed that at least 50 percent of the City's solid waste stream in the year 2010 would be diverted. Please see Appendix J. Utilities and Community Services, pp. A.109 - A.110 for further information on those state requirements. At build-out, Phase 2 would generate approximately 2,210 tons per year in the year 2010. Assuming that about 51 percent of these amounts would be diverted from the waste stream, approximately 1,080 tons would result in landfill disposal in the year 2010. This would be an increase of about 0.23 percent of the amount that would be sent in the year 2005 for landfill disposal from citywide sources. The increase is less than one percent; the Altamont Landfill would have the capacity for this amount of solid waste in the year 2010.

Construction of the Phase 2 buildings would also generate construction waste, demolition waste, and excavated soils. A total of about 90,000 cubic yards of excavated soil would be generated by excavation at the Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue sites. The construction, demolition, and excavation contractors would determine the recycling or disposal method of these wastes.

WATER SUPPLY

Year 2000

The Phase 1 buildings would increase the Geary Campus' water use exclusive of the hospital, by about 0.044 million gallons per day (mgd) from 0.022 mgd in 1995 to about 0.067 mgd in the year 2000. This represents about a 70 percent increase in the amount of water used by the Geary Campus and would be less than 0.1 percent of current citywide demand. The San Francisco Water Department (SFWD) has indicated that it would be able to provide this amount without needing to seek out new sources of water.[8] In addition, existing regulations require that

the proposed buildings install water-saving devices such as low-flow (1.6 gallon per flush) toilets and faucets, and other water-conserving plumbing fixtures, which would offset increases in citywide demand.

Year 2010

Phase 2 would further increase water consumption by the Geary Campus, exclusive of the hospital, by about 0.062 mgd by 2010 from 1995 water use, increasing total consumption in 2010 to about 0.084 mgd. This represents about a 275 percent increase in the amount of water used by the Geary Campus, and would be less than 0.1 percent of citywide demand. The SFWD has indicated that it would be able to provide this amount without needing to seek out new sources of water.[9] Phase 2 buildings would also be required to install water-saving devices that could reduce the projected water demand of 0.084 mgd.

WATER SUPPLY INFRASTRUCTURE

Year 2000

The development of water supply infrastructure to serve the new buildings would be determined by the SFFD and the SFWD. Kaiser would submit building plans and water demand calculations to the SFWD who would evaluate the water demand by setting up a computer model that would take into account the number and type of plumbing fixtures (toilets, sinks, etc.). If the results of the model indicate that the SFWD water distribution system could adequately serve the project, then the SFWD would issue Kaiser a permit allowing Kaiser to hook up to the City's water mains.[10] No new water mains would need to be constructed to serve the new buildings because water mains exist. Based on an estimated water demand of 0.067 mgd in the year 2000, the City estimates that existing water main capacity is adequate to serve the Phase 1 buildings.[11] Kaiser would also submit detailed building plans to the SFFD who would review the

plans and would approve them if the fire flow demand can be met with existing and/or proposed infrastructure.

Year 2010

The same procedures would be followed to evaluate water demand to serve the Phase 2 buildings. Based on a water demand estimate of 0.084 mgd in the year 2010, the City estimates that existing water main capacity is adequate to serve the Phase 2 buildings.[12]

WASTEWATER TREATMENT CAPACITY

Year 2000

The Phase 1 buildings would not add additional landscaped areas, where additional irrigation would be required. Landscaping is anticipated to consist of street tree and planter area replacement. Because of the relatively small area that is landscaped, it is assumed that about 5 percent of the water used by the Phase 1 buildings would be for irrigation, and 95 percent of the water used by the Phase 1 buildings would be collected and treated as wastewater. Thus, the Phase 1 buildings would generate wastewater of about 95 percent of year 2000 water demand, or about 0.064 mgd. Phase 1 could increase average dry weather flows to the Southeast Water Pollution Control Plant by about 0.08 percent. The City has indicated that the Southeast Water Pollution Control Plant could serve the project within the existing capacity of the Southeast Water Pollution Control Plant, and the project does not pose capacity constraints limiting future City development.[13] The City has also indicated that the existing sewer main capacity in the vicinity of the Geary Campus is adequate to convey the increased volume of wastewater.[14]

Year 2010

The Phase 2 buildings would not add an appreciable area of landscaping; it is anticipated that water for irrigation could be used for landscaping such as street trees and planter areas. Assuming that the Phase 2 buildings would generate wastewater that is 95 percent of water consumed, the amount of wastewater generated by the Phase 1 and Phase 2 buildings combined would be about 0.081 mgd. Phases 1 and 2 would increase average dry weather flows to the Southeast Water Pollution Control Plant by about 0.1 percent over the current average dry weather flow of 85 mgd. The City has indicated that the Southeast Water Pollution Control Plant could serve the project within the existing capacity of the Southeast Water Pollution Control Plant, and the project does not pose capacity constraints limiting future City development.[15]

BRODERICK UTILITY CORRIDOR

Year 2000

The Phase 1C/2295 Geary Boulevard building would be built over an existing underground utility corridor and easement located between the existing 2190 O'Farrell Garage and the 2200 O'Farrell outpatient services building. The utility corridor was Broderick Street before it was vacated. The alignment of the utility lines in the Broderick Utility Corridor would remain the same. None of the lines would require rerouting. Excavation of the proposed parking garage beneath the Phase 1C /2295 Geary Boulevard building would occur under the utility corridor. The utility lines would need special support during excavation and construction of the garage, which would be provided as part of standard construction procedures. If the portion of the sewer line is found to be structurally deficient, Kaiser would replace this section during excavation of the underground garage.[16] Following the recommendations of Kleinfelder, Kaiser would protect utility lines in the Broderick Utility Corridor from disruption during construction of Phase 1C/2295 Geary Boulevard by encasing the utilities in a concrete vault, supporting the vault during excavation for the parking garage, and extending the foundation walls of the Phase

1C/2295 Geary Boulevard building below the utility corridor.[17] See IV.O. Hydrology and Water Quality, p. 455, for a discussion of groundwater dewatering effects on the utility corridor.

The proposed H-shape design of the Phase 1C/2295 Geary Boulevard building would have an open walkway at ground level. The two wings of Phase 1C/2295 Geary Boulevard building would be joined at the fourth through eighth floors by an above-ground elevated structure over the vacated Broderick Street. The area over the utility vault at the surface level would remain open, and paved and landscaped. Access to the utility vault would remain unobstructed. Other access requirements would be specified by the City.

Kaiser is exploring an alternative which would involve relocation of the utilities pursuant to a cooperative agreement between Kaiser, the City and the easement holders. The relocation would be done in a manner which would insure continued utility services to customers.

Year 2010

The Phase 2 buildings would not affect the Broderick Utility Corridor because neither of the buildings would be located adjacent to the corridor.

NOTES - Utilities and Community Services

1. Frank Scales, Assistant Deputy Chief, San Francisco Fire Department, telephone conversation, July 18, 1995.

2. Frank Scales, Assistant Deputy Chief, San Francisco Fire Department, telephone conversation, July 18, 1995.

3. Steven Van Dyke, Stationary Engineer, San Francisco Fire Department, telephone conversation, November 15, 1995.

4. Frank Scales, assistant Deputy Chief, San Francisco Fire Department, telephone conversation, July 19, 1995.

5. a) Sergeant Roger Farrell, Richmon Station, San Francisco Police Department, telephone conversation, November 11, 1995.

b) Sergeant Layne Amiot, Park District, San Francisco Police Department, telephone conversation, November 10, 1995.

6. Captain Heather Fong, Planning Division, San Francisco Police Department, letter, August 1, 1995.

7. Michael Sheats, Project Manager, Kaiser Permanente Medical Center, telephone conversation, November 14, 1995.

8. Joseph Pelayo, Senior Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, May 29, 1996.

9. Joseph Pelayo, Senior Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, May 29, 1996.

10. Joseph Pelayo, Senior Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, November 14, 1995.

11. Joseph Pelayo, Section Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, May 29, 1996.

12. Joseph Pelayo, Section Engineer, City Distribution Division, San Francisco Water Department, telephone conversation, May 29, 1996.

13. Steven Todd, Civil Engineer, Department of Public Works, Bureau of Environmental Regulation and Management, telephone conversation, June 21, 1996.

14. Henry Anderson, Chief of Hydraulics Section, Department of Public Works, telephone conversation, June 21, 1996.

15. Henry Anderson, Chief of Hydraulics Section, Department of Public Works, telephone conversation, June 21, 1996.

16. Michael Sheats, Project Manager, Kaiser Permanente Medical Center, telephone conversation, January 16, 1996.

17. Mike Majchrzak, Geotechnical Engineer, Kleinfelder, telephone conversation, November 13, 1995.

L. ENERGY

Energy impacts are evaluated by comparing project construction and operation energy demands to existing electrical reserve and planned capacity, and to state-wide natural gas and petroleum supplies, and by assessing whether or not project energy use would be wasteful.

OPERATIONAL IMPACTS

Year 2000

The project's operational energy requirements in the year 2000 would total about 61 billion Btu (BBtu), an increase of about 74 percent from the 1995 energy use of 35 Bbtu (see Appendix K. Energy, Tables IX.K.2 and IX.K.3, p. A.116 - A.117). Sources of increased energy demand in the year 2000 would be the Phase 1A/2290 Geary Boulevard outpatient services building, the Phase 1B/2139 O'Farrell Street replacement housing, and the Phase 1C/2295 Geary Boulevard outpatient services building. These buildings would increase electricity and natural gas consumption and would contribute to increased energy consumption and demand in San Francisco and PG&E's service area. Electricity would be used for lighting and heating, ventilating, and air conditioning; natural gas would be used for space and water heating.

Out of the total electrical demand of 13.3 million kilowatt-hours (kWh), the additional Geary Campus electricity use in the year 2000 would be 4.3 million kWh per year. The electric energy load of the PG&E service area is estimated to be about 96,300 gigawatt-hours (GWh) in the year 2000, an increase of about 7,700 GWh. Electrical use by the Geary Campus in the year 2000 would be about 0.06 percent of this estimated area-wide increase.[1] The Geary Campus would contribute to area-wide increases in electrical demand and is within the increase that is currently forecasted by the California Energy Commission and PG&E.

The Phase 1 buildings would increase natural gas demand from existing 1995 use of 3.6 million cubic feet (cf) by about 10.9 million cf per year to a total demand of about 14.5 million cf per

year. Based on information from the California Energy Commission, it is estimated that annual state-wide natural gas consumption in the year 2000 would be about 2,300 billion cf. The Geary Campus would consume about 0.0006 percent of state-wide natural gas consumption in the year 2000. This amount is not beyond what is currently forecasted for growth by the California Energy Commission. In addition, Enron, the provider of natural gas to the Geary Campus, has indicated that it does not consider this to be a substantial increase and that it would be able to serve this additional increase within its existing pipeline distribution capacity and anticipated supply.[2]

Year 2010

The project's operational energy requirements in the year 2010 would total 82 BBtu, an increase of about 134 percent over 1995 use (see Appendix K., Table IX.K.3, p. A.117). Sources of increased energy demand in the year 2010 would be continued operation of the Phase 1A/2290 Geary Boulevard outpatient services building, the Phase 1B/2139 O'Farrell Street replacement housing, and the Phase 1C/2295 Geary Boulevard outpatient services building; and new construction of the Phase 2A/1455 Divisadero Street outpatient services building, and the Phase 2B/New 350 St. Joseph's Avenue administration building. The additional Geary Campus electricity use would be about 8.8 million kWh per year, for a total electrical demand of 17.8 million kWh per year. In the year 2010, it is estimated that the electric energy load of the PG&E service area would be 110,673 GWh, an increase of about 22,073 GWh from the current 1994 electric energy load of 88,600 GWh. The net increase of electrical use by the Geary Campus in the year 2010 would be about 0.04 percent of this estimated area-wide increase. The Geary Campus in the year 2010 would contribute to area-wide increases in electrical demand, but would not contribute amounts beyond what is currently forecasted by the California Energy Commission or by PG&E.

Operation of the Phase 2 buildings would increase natural gas demand from the existing 1995 demand of 3.6 million cf by about 15.6 million cf per year, or a total of 19.2 million cubic feet (cf) per year. Annual state-wide natural gas consumption in the year 2010 would be about 2,600

billion cf. The Geary Campus would consume about 0.0006 percent of state-wide annual consumption in the year 2010. This amount is not beyond what is currently forecasted by the California Energy Commission. Enron has indicated that it would be able to serve this additional increase within its existing pipeline distribution capacity and within its available supply.[3]

TITLE 24 COMPLIANCE

Compliance with Title 24 standards (see III.L. Energy, p. 219) can be achieved through either a "performance" or a "prescriptive" approach. The performance approach requires that a building be designed to consume no more energy than the designated energy "budget" for that building. This energy budget is based on building type and size, and the climactic zone in which it is located. In the prescriptive approach a building must incorporate certain energy saving features that have been determined to achieve building designs that meet the applicable energy budgets. In that approach, the builder can choose from a variety of alternative component packages which specify features such as insulation, glazing, lighting, shading, and water and space heating systems.

Before building permits or addenda to site permits are approved, the City and County of San Francisco would review the design of the new Phase 1 and Phase 2 buildings to ensure efficient energy use. As part of the permit application review of the project, Kaiser must submit detailed construction plans and specifications to the City's Department of Public Works and Department of Building Inspection, for each proposed building. The plans and specifications would be reviewed for compliance with applicable local, state, and federal building codes, including Title 24 energy conservation compliance and the Uniform Building Code. Once the Department of Building Inspection determines that project plans satisfy applicable requirements, the Department would issue a building permit or a site permit, or addenda to a site permit. Thus, local permitting procedures would ensure efficient energy use in new buildings.

Kaiser would seek separate site permits for each of the Phase 1 and Phase 2 buildings in the project. Thus, review for compliance with Title 24 energy efficiency standards for the Phase 1 and Phase 2 buildings would occur during the permit approval process and before approval of an appropriate addendum to the site permit.

CONSTRUCTION ENERGY USE

Year 2000

Energy impacts related to project construction would require a one-time energy expenditure. Energy would be consumed for a variety of different functions related to the construction of the proposed project. It would be consumed by equipment required to haul construction materials and waste, to excavate soil, to process construction materials, and to transport off-site materials and equipment. Phase 1 construction for the proposed project would consume approximately 1,480 BBtu of energy for operation of construction equipment and processing of materials used in construction of the Phase 1 buildings and for transportation of construction workers and construction vehicles. This is equivalent to about 255,200 barrels (bbl) of crude oil.[4]

The estimated energy consumption that would be required in the production and manufacturing of Phase 1 construction materials is estimated to be about 1,231 BBtu. This is equivalent to about 212,000 bbl of crude oil. The estimated demand for energy in the form of gasoline and diesel fuel resulting from Phase 1 construction activities is 248 BBtu, equivalent to about 43,000 bbl of crude oil. Total construction energy consumption for Phase 1 is estimated to be 1,479 BBtu, which would equal approximately 255,000 bbl of crude oil.

Construction activities are related to economic production, and energy expenditures are necessary during construction. If measures are taken to control direct energy use during construction, then energy use would not be wasteful. Proposed improvement measures to control construction energy use are listed on V.I. Energy, p. 499.

Year 2010

Phase 2 total energy consumption for construction activities would total about 520 BBtu, equivalent to about 89,700 bbl of crude oil. Materials for construction of the Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue buildings are estimated to require about 410 BBtu for its production and manufacture, equivalent to about 70,700 bbl of crude oil. Transportation of workers and construction vehicles would require about 110 BBtu of energy, or about 19,000 bbl of crude oil.

Phase 2 construction would also be related to economic production, with necessary one-time energy expenditures. As with Phase 1, if measures are taken to control the direct use of energy during Phase 2 construction, then energy use would not be wasteful.

ENERGY USE DURING PROJECT TRANSPORTATION

Year 2000

The proposed project would contribute additional vehicle trips from commuting employees, deliveries of supplies and other materials to the Geary Campus, patients, and other visitors, which would increase use of gasoline and diesel fuel. The consolidation of the Phase 1 buildings, however, would offset somewhat the additional vehicle trips that could be contributed by the project by reducing patient and provider trip distances between departments, thereby improving travel efficiency. By the end of Phase 1, off-site Kaiser departments would vacate these sites and move into the new Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings. Off-site leases to be vacated include 1635 Divisadero, 2580-90 Geary, 2560 Geary, 924 Presidio, 2107 O'Farrell, and 1201 Fillmore. Off-site departments at the French Campus would also vacate buildings at the French Campus and move into the new Phase 1 outpatient services buildings.

The Geary Campus would continue to be served by Muni bus lines. It is anticipated that some patients, visitors, and employees would continue to use bus transit. In addition, Kaiser would continue and expand its Transportation Demand Management program intended to reduce personal employee vehicle trips.

As discussed in IV.G. Transportation and Circulation, p. 351, Phase 1 would generate a net addition of approximately 3,620 average daily vehicle-trips, which would result in increased transportation energy use in the year 2000.

Year 2010

All off-site leases would be vacated by the year 2000 except 425 Market and 601 Van Ness, and consolidation of City-wide Kaiser departments would be achieved by the year 2010. Thus, no change in travel efficiency would occur between the year 2000 and the year 2010. Bus transit would continue to be used, as well as automobiles, and Kaiser would extend a Transportation Demand Management Program to the Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue buildings. However, as discussed in IV.G. Transportation and Circulation, p. 351, Phase 2 combined would generate a total net addition of approximately 6,200 average daily vehicle trips, resulting in increased transportation energy use in the year 2010.

INFRASTRUCTURE FOR ELECTRICITY

Year 2000

PG&E and the electrical engineers who are designing the project are coordinating the electrical requirements of the new outpatient services buildings. They have determined that one new electrical transformer would be needed to serve the Phase 1A/2290 Geary Boulevard building and would be located inside the building. A pole station and splice box would be located outside

of the building. PG&E estimates that other new transformers may need to be installed to serve the other Phase 1 buildings, and such transformers would most likely be located inside the buildings. PG&E has indicated that it would be able to construct and install the transformers for the project if requested; PG&E is obligated to provide electrical service and the infrastructure needed to convey it. No other off-site construction of electrical facilities is anticipated.[5]

Year 2010

PG&E estimates that additional transformers may be needed to provide sufficient electrical service to the Phase 2 buildings. Transformers would likely be located inside the buildings. PG&E would be able to construct and install these additional transformers if requested by Kaiser. No off-site construction of electrical facilities is anticipated.[6]

INFRASTRUCTURE FOR NATURAL GAS

Year 2000

The proposed Phase 1 outpatient services buildings would require new hook-ups to existing feeder lines in the surrounding streets. Preliminary engineering designs indicate that a gas vault is proposed at the corner of Broderick Street and Geary Boulevard in the sidewalk. This vault would house meters that measure the building's natural gas consumption. Such a vault is a standard construction requirement and would be constructed on-site.

PG&E has indicated that off-site reinforcement of its distribution system would not be necessary because Kaiser is a small commercial project that does not consume much natural gas on a relative scale (i.e., compared to a crude oil refinery).[7]

Year 2010

The Phase 2 buildings would require connections to existing distribution lines under adjacent streets. Like the Phase 1 buildings, construction to provide connections would involve trenching and placement of connection lines. Detailed engineering plans are not available to indicate the exact infrastructure requirements to provide natural gas service. PG&E anticipates that no off-site augmentation of its existing system would be necessary to provide service to the Phase 2 buildings.[8]

NOTES - Energy

1. Based on a compound annual growth rate of 1.4 percent from the 1994 area electric energy load of 88,600 gigawatt-hours (GWh) in 1994. Source: PG&E, Form 10-K for the fiscal year ended December 31, 1994, p. 19.

2. Dan Bergman, Representative, Enron Corporation, telephone conversation, September 21, 1995.

3. Dan Bergman, Representative, Enron Corporation, telephone conversation, September 21, 1995.

4. 1 bbl crude oil = 42 gallons crude oil = 5.8 million Btu.

5. Jim Crane, Planning Division, PG&E, telephone conversation, September 12, 1995.

6. Jim Crane, Planning Division, PG&E, telephone conversation, September 12, 1995.

7. Jim Crane and Lee Isaac, Planning Division, PG&E, telephone conversations September 12, 1995, and January 19, 1996.

8. Jim Crane and Lee Isaac, Planning Division, PG&E, telephone conversations September 12, 1995, and January 19, 1996.

M. VEGETATION AND WILDLIFE

YEAR 2000

No street trees would be damaged during construction of Phase 1A/2290 Geary Boulevard because none exist adjacent to the site. No sensitive species or habitat would be disturbed.

Activities associated with demolition, excavation, and construction for Phases 1B/2139 O'Farrell Street (demolition of 1401-17 Divisadero) and 1C/2295 Geary Boulevard would necessitate the removal of all street trees adjacent to 1401-17 Divisadero Street and 2190 and 2200 O'Farrell Street. New street trees would be planted. No sensitive species or habitat would be disturbed.

To implement the Urban Forestry Ordinance (Article 16, San Francisco Public Works Code), Kaiser would develop a landscaping plan for the new buildings that would include planting or replacement of all street trees removed or damaged during excavation and construction of the proposed project.

YEAR 2010

Activities associated with demolition and construction in Phase 2 of the project would cause removal of all trees at Phase 2B/New 350 St. Joseph's Avenue. As with Phase 1, new trees would be planted. No endangered or sensitive plant or animal species or habitat for sensitive species would be affected by the project.

N. SOILS, GEOLOGY, AND SEISMICITY

GEOLOGY AND SOILS

Regulatory Compliance

All phases of the proposed project would be required to comply with the excavation, demolition, and construction provisions of the *San Francisco Building Code*[1] and applicable provisions of the California Building Code, Title 24, Part 2, CCR (State Building Code). The San Francisco Building Code regulates the safety conditions of new construction projects in the City and is a modified version of the Uniform Building Code used in about half the United States. It contains additions and amendments to the state building code that are specific to building conditions and structural requirements in San Francisco. Chapters 18, 33 and A33 of the San Francisco Building Code deal with excavations, foundations, retaining walls, and grading, including (but not limited to) requirements for foundation investigations, underpinning, slope stability, and drainage and erosion control. These chapters of the San Francisco Building Code are more stringent than the corresponding sections of the state building code. Unless otherwise stated, each of the impacts identified in the following paragraphs is addressed by one or more of the provisions of the San Francisco Building Code. Although conformance with the provisions of the San Francisco Building Code is required of all development projects in the City, discussion of the potential impacts and hazards regulated by them is included to provide decision makers with the geology and soils context in which the regulations are applied.

Phase 1A/2290 Geary Boulevard

The Phase 1A/2290 Geary site would be excavated to a depth of about 55 feet below the ground surface, reaching as much as 20 feet below the groundwater table. Because the excavation walls would be vertical and would be in unconsolidated sediments, slumping of material in the walls could endanger workers and undercut ground support for the foundations of adjacent roads and structures. To prevent slumping, excavation walls would be shored and lateral supports installed.

The excavation support system would be designed specifically for the excavation conditions at the Phase 1A/2290 Geary Boulevard site by a licensed civil engineer, registered in the State of California, with experience in excavation support of systems, and would be reviewed by the geotechnical engineer. Shoring could be provided by a restrained soldier beam and lagging wall. Soldier beams are a wall of "I" beams, driven to the base of the excavation. They are restrained (that is, prevented from moving into the excavation) by being braced from inside the excavation with other beams, or by being held in place with "tie-backs," which are metal rods anchored deeply in the soil materials behind the soldier beam wall. Other types of systems, appropriate to the site also could be used. The selected system would be designed to withstand existing lateral soil pressure, water pressure, and the influence of surcharging (that is, additional weight) from adjacent structures and traffic near the edge of the excavation. If necessary, adjacent structures and paved areas would be underpinned to reduce damage by settlement resulting from the excavation. Settlement of the soil behind the shoring associated with the planned excavation would be about one to four inches, depending on the rigidity of the shoring constructed.

Because the bottom of the excavation at the Phase 1A/2290 Geary Boulevard site would be below the water table, temporary dewatering would be necessary during the excavation and construction periods to protect the workers and allow installation of the foundation and lower levels of the building. Possibly as much as one inch of settlement around the perimeter of the excavation could be caused by this temporary dewatering (see IV.O. Hydrology and Water Quality, p. 454). This settlement could crack the foundations, walls, or floor slabs of the adjacent private residential structure about five feet east of the Phase 1A/2290 Geary Boulevard site, and could cause cracks or sink holes in the adjacent public roads. However, because the settlement would be gradual, the geotechnical consultant does not anticipate these effects would occur.

As required by Section 3301.2 of the San Francisco Building Code, the project sponsor must take reasonable precautions to protect adjacent structures from damage, such as settlement, caused by the excavation. The actual effects of these settlement conditions would be evaluated by a pre-excavation survey, to determine what type of protection, if any, would be installed to prevent settlement damage. The pre-excavation settlement-damage survey would include, at a minimum, visual inspection of existing vulnerable structures for cracks and other settlement

defects, and establishment of horizontal and vertical control points on streets and the building adjacent to the site. Such protection could include a combination of applicable methods, such as underpinning adjacent structures, confining dewatering to the excavation site, and the selective use of soil grout or building jacks. A monitoring program of surveying horizontal and vertical control points on streets, structures, and shoring would be established and followed by the contractor to determine the effects of dewatering excavation and construction on sites adjacent to the construction site. The designs, systems, and monitoring program would be reviewed by the geotechnical consultant. A mitigation measure has been included to provide surveying, monitoring and compensation for project-related ground-settlement damage (V.J. Soils, Geology and Seismicity, p. 500).

Excavation of the Phase 1A/2290 Geary Boulevard site would generate about 70,000 cubic yards of sand, silt, and clay for disposal. Material suitable for backfill may be re-used or sold for use as artificial fill. Excess and unsuitable materials would have to be removed from the site by trucks and transported to a soil stockpile area or disposed of at a landfill site (see the Solid Waste discussion in IV.K. Utilities and Community Services, p. 427 - 429).

The new building would have a mat foundation supported on the dense to very dense dune sands and medium-dense clayey sands at the bottom of the excavation. The finished floor elevation of the lowest parking level of the new building would be between +98 feet and +103 feet San Francisco City Datum (SFCD), about 8 to 20 feet below the groundwater table. The foundation, basement walls, and slab-on-grade would be designed to withstand the pressure of groundwater, and to reduce or eliminate seepage. If needed, a permanent dewatering system could be installed to maintain the groundwater table at an elevation below that of the foundation, or to pump seepage from the subsurface levels below the water table. The foundation, slab-on-grade, and basement walls would be designed to resist static earth pressures from the adjacent subsoils, thus protecting them from heave or collapse caused by expansion of the subsoils.

About one inch of settlement is anticipated from the weight of the new building. Most of the settlement would occur during compression of the soils at the bottom of the excavation coincident with building construction. The building would be designed and constructed to

account for this settlement, thus protecting it from the cracking or tilting that can result from differential settlement.

Phase 1B/2139 O'Farrell Street

The Phase 1B/2139 O'Farrell Street site would be leveled at the existing ground surface, about +183 feet SFCD. Spoils from Phase 1B/2139 O'Farrell Street site would be negligible, and would be re-used or disposed of as described for the Phase 1A/2290 Geary Boulevard site (see p. 446). No excavation or dewatering impacts are expected because the new construction would occur approximately at the ground surface exposed by the demolition of the existing structure at the site.

The new building probably would have a continuous footing or mat foundation supported on compacted fill or the native stiff clay and silt interbedded with medium dense to dense sand at the graded surface. Settlement from the weight of the new building is anticipated to be similar to the Phase 1A/2290 Geary Boulevard site, would occur during compression of the soils coincident with building construction, and would be compensated for in the structural design.

Phase 1C/2295 Geary Boulevard

The Phase 1C/2295 Geary Boulevard site would be excavated to a depth of about 65 feet below the ground surface, reaching as much as 10 feet below the groundwater table. As with the Phase 1A/2290 Geary Boulevard site, the excavation walls would be vertical, in unconsolidated sediments, subject to slumping, and a possible hazard to workers in the excavation or structures adjacent to it. To prevent these occurrences, the excavation walls would be shored, and lateral supports would be installed, similar to the systems described for the Phase 1A/2290 Geary site. Underpinning of adjacent structures (350 St. Joseph's Avenue and 2930 Geary Boulevard) may be necessary to reduce damage resulting from settlement associated with the excavation.

Differences in the subsoils are not anticipated to be great, but the systems would be designed for the Phase 1C/2295 Geary Boulevard site to account for site-specific conditions.

Because the bottom of the excavation at the Phase 1C/2295 Geary Boulevard site would be below the water table, temporary dewatering would be necessary during the excavation and construction periods, as previously described for the Phase 1A/2290 Geary Boulevard site (see p. 445). Because of the similarity of the subsurface materials, settlement effects similar to those described for the Phase 1A/2290 Geary Boulevard site are anticipated. The actual effects of these settlement conditions would be evaluated by a pre-excavation survey, and through a monitoring program during the excavation and construction periods, to determine which of the previously listed protection measures would be appropriate to install.

Excavation of the Phase 1C/2295 Geary Boulevard site would generate about 145,000 cubic yards of sand, silt, and clay to be re-used, sold, or disposed of as described for the Phase 1A/2290 Geary Boulevard site (see p. 446).

The new building probably would have a mat foundation supported on the dense to very dense dune sands at the bottom of the excavation. The finished floor elevation of the lowest parking level of the new building would be between +115 feet and +120 feet SFCD, between 0 and 10 feet below the groundwater table. As with the Phase 1A/2290 Geary Boulevard site, the foundation, basement walls and slab-on-grade would be designed to counteract groundwater effects. Static earth-pressure resistance would be designed into the subsurface portions of the structure.

Settlement conditions are expected to be similar to those for the Phase 1A/2290 Geary Boulevard building, but design and construction to account for settlement would need to take into consideration the utility corridor existing on the site in the former Broderick Street right-of-way into consideration. The utilities in the existing corridor are supported on native ground or fill. They would need to be re-routed or temporarily supported during the excavation and construction periods. The rebuilt utility corridor would occupy part of one subsurface parking level in the Phase 1C/2295 Geary Boulevard structure, and probably would contain floor or

ceiling supports for the individual utility lines. This provision would allow easy access for maintenance and repair, and would allow easy re-adjustment of drainage lines, as needed, to compensate for settlement. The final design of the corridor through the Phase 1C/2295 Geary Boulevard subsurface parking level, and the support systems for the utilities, would be reviewed by the San Francisco Department of Public Works to ensure adequate protection for the utilities, particularly in emergency situations (see Non-Structural Considerations in III.N. Soils, Geology, and Seismicity, pp. 323 - 233).

Year 2010

Phase 2A/1455 Divisadero Street

The Phase 2A/1455 Divisadero site would be excavated to a depth of about 45 feet below the ground surface, reaching as much as 20 feet below the groundwater table. As with the Phase 1A/2290 Geary Boulevard site, the excavation walls would be vertical, in unconsolidated sediments, and subject to slumping. To prevent this occurrence, the excavation walls would be shored, lateral supports would be installed and the adjacent building (2130 Geary) would be underpinned, if necessary, using methods similar to those described for the Phase 1A/2290 Geary Boulevard site.

Because the bottom of the excavation at the Phase 2A/1455 Divisadero Street site would be below the water table, temporary dewatering would be necessary during excavation and construction periods, as previously described for the Phase 1A/2290 Geary Boulevard site. Because of the similarity of the subsurface materials, settlement effects similar to those described for the Phase 1A/2290 Geary Boulevard site are anticipated. The actual effects of these settlement conditions would be evaluated by a pre-excavation survey, and a monitoring program during the excavation and construction periods, to determine which of the previously listed protection measures would be appropriate to install, as described for the Phase 1A/2290 Geary Boulevard site.

Excavation of the Phase 2A/1455 Divisadero Street site would generate about 40,000 cubic yards of sand, silt, and clay to be re-used, sold, or disposed of as described for the Phase 1A/2290 Geary Boulevard site.

The new building probably would have a mat foundation supported on the dense to very dense dune sands and medium dense clayey sands at the bottom of the excavation. The finished floor elevation of the lowest parking level of the new building would be between +120 feet and +125 feet SFCD, between 0 and 10 feet below the groundwater table. As with the Phase 1A/2290 Geary Boulevard site, the foundation, basement walls and slab-on-grade would be designed to counteract groundwater effects. Static earth-pressure resistance would be designed into the subsurface portions of the structure.

The weight of the new building is expected to compress the subsoils coincident with building construction, and would be compensated for in the structural design of the building. Settlement effects would be similar to the effects described for the Phase 1A/2290 Geary Boulevard site.

Phase 2B/New 350 St. Joseph's Avenue

The Phase 2B/New 350 St. Joseph's site would be excavated to a depth of about 55 feet below the ground surface, but probably would not reach below the groundwater table. As with the Phase 1A/2290 Geary Boulevard site, the excavation walls would be vertical, in unconsolidated sediments, and subject to slumping. To prevent this occurrence, the excavation walls would be shored, and lateral supports would be installed, using methods similar to those described for the Phase 1A/2290 Geary Boulevard site.

Excavation of the Phase 2B/New 350 St. Joseph's Avenue site would generate about 50,000 cubic yards of sand, silt, and clay to be re-used, sold, or disposed of as described for the Phase 1A/2290 Geary Boulevard site.

The new building probably would have a mat foundation supported on the dense to very dense dune sands at the bottom of the excavation. The finished floor elevation of the lowest parking level of the new building would be between +150 feet and +155 feet SFCD. Static earth-pressure resistance would be designed into the subsurface portions of the structure.

The weight of the new building is expected to compress the subsoils coincident with building construction, and would be compensated for in the structural design of the building. Settlement effects would be similar to the effects described for the Phase 1A/2290 Geary Boulevard site.

SEISMICITY

Regulatory Compliance

Construction of all phases of the proposed project would be required to comply with the seismicity provisions of the San Francisco Building Code. Chapters 16 and A16 of the San Francisco Building Code deals with general design requirements, including (but not limited to) regulations governing seismically resistant construction. The seismic safety portions of the San Francisco Building Code are more stringent than the corresponding sections of the state building code. They pertain to the basic structure of the facility, such as the foundation excavation, foundation design and placement, and the building design and construction, rather than to non-structural issues, such as the long-term use of the facility or the way in which equipment and materials are anchored or stored in it. The structural issues identified in the impacts described below are addressed by one or more of the provisions of the San Francisco Building Code. The non-structural issues would be addressed by improvement measures included in the proposed project to ensure public safety. Although conformance with the provisions of the San Francisco Building Code is required of all development projects in the City, some discussion of the potential impacts and hazards regulated by them is included to provide decision-makers with the seismicity context in which the regulations are applied.

Year 2000 and Year 2010

The Kaiser Geary Campus is in an area subject to very strong seismically induced groundshaking, which could threaten life and damage property. From the review of regional and local geo-seismic conditions, it is likely that the campus will be subjected to at least one major earthquake during the useful economic life of the proposed structures. The most severe earthquake expected is estimated to be an M_w 7.1 (M8.3) earthquake on the San Andreas fault, creating peak horizontal ground accelerations in excess of 0.5g (50 percent of the force of gravity) in the project area. The resulting vibration could cause damage to structural members of buildings or utility lines (primary effects), and could cause ground failures in the underlying dune sand (secondary effects) which, in turn, endanger structures and their occupants.

Strict enforcement of seismic standards in Chapters 16 and A16 of the San Francisco Building Code would be the minimum requirement for each building. Kaiser would ensure that new facilities would reduce the exposure to potentially damaging earthquake vibrations through seismic-resistant design based on the geologic conditions at the construction sites, and the maximum earthquake forces expected at the site. Seismic-restraint recommendations of a California Registered Geologist, in consultation with the geotechnical and structural engineers for each construction project, would be incorporated in the design of the new buildings to reduce the chance of injury to users of each proposed structure during a major earthquake.

During the excavation and construction periods, seismically induced ground failures such as excavation wall collapse would be of concern if competent shoring and bracing systems were not in place. Because the finished individual building sites would have no free-standing cut or fill slopes, such failures would not be of concern during occupancy of the buildings. However, excavations would be open on one or another site within the Geary Campus at different times throughout the two expansion phases. Possible seismically induced settlement of areas adjacent to the excavations would be of concern.

The potential for seismically related personal injuries would be of particular concern on the Geary Campus because it is expected to be frequented by elderly patients and other persons with

mobility limitations. The existing employee population on the Campus is about 2,050 persons. With the consolidation of services this number is expected to decrease to about 2,000 by the year 2000, but rise to about 2,300 by the year 2010 with membership growth. Annual visits to the campus are expected to rise from the 1995 level of about 708,000 to about 779,000 by the year 2000 and to about 899,000 by the year 2010. It is in this sense that the concentration of an especially vulnerable portion of the San Francisco Bay Area population in an area subject to seismic hazards would need to be addressed. In this same sense, non-structural damage, such as the disruption of complex electronic monitoring and testing equipment, or the destruction of medical supplies, would be of particular concern because the Geary Campus facilities would be looked to for assistance with emergency medical treatment following a major damaging earthquake. An adequate emergency response plan, as well as sufficient anchoring of equipment and supply storage facilities, would be needed to address these concerns.

NOTES - Soils, Geology, and Seismicity

1. City and County of San Francisco Municipal Code, Building Code, December 14, 1995, Chapters 16, 18, 33, A16 and A33.

O. HYDROLOGY AND WATER QUALITY

GROUNDWATER DEWATERING EFFECTS DURING EXCAVATION

Year 2000

Phase 1A/2290 Geary Boulevard

The Phase 1A/2290 Geary Boulevard building would consist of eight stories above ground and seven levels of below-grade parking in the underground parking garage. The proposed basement would underlie the entire building area and would extend to a depth of approximately +98 to +103 feet San Francisco City Datum, equivalent to 50 - 55 feet below ground space. Excavations as much as 60 feet below the existing ground surface would be needed for construction of the basement and the foundation for the proposed building. Because excavation for the Phase 1A/2290 Geary Boulevard basement would extend below the clayey sand layer that separates the upper and lower aquifers, dewatering both aquifers would be needed, as recommended by Kleinfelder, and would occur prior to excavation.[1] Groundwater could be encountered at varying elevations across the site and the levels could fluctuate several feet.[2] However, groundwater may be expected to occur at depths of 33 to 40 feet below the ground surface.[3] The actual depth at which groundwater could be encountered at the time of excavation would depend on the permeability of the soils at the site. Other factors that might affect the overall groundwater elevation, include seasonal variation, and groundwater remediation activities at 2130 O'Farrell Street.

Dewatering would create a drawdown effect that would form a cone-shaped depression in the water table. The depression could extend laterally beyond the sides of the proposed basement and beneath adjacent buildings and streets. This depression in the water table could induce compression of the clayey soils located below the groundwater table possibly resulting in soil settlement. The depths of soil settlement are estimated to be zero at approximately 50 feet from the limit of excavation to a maximum of one inch near the edge of the excavation. The residential building that is situated approximately five feet east of the proposed excavation face

for the Phase 1A/2290 Geary Boulevard building could experience settlement of about one inch.[4] Groundwater drawdown could raise safety or infrastructure maintenance issues. Such activity could weaken foundations by causing soil settlement, or could cause instability of street surfaces. If the soil beneath Broderick Street became unstable because of soil settlement, the utility lines in the utility corridor under this street could be affected (see IV.K. Utilities and Community Services, pp. 432 - 433, for a discussion of the utility right-of-way). As required by Section 3301.2 of the San Francisco Building Code, Kaiser must take reasonable precautions to protect properties adjacent to the excavation (see IV.N.Soils, Geology, and Seismicity, pp. 445 - 446). A mitigation measure has been included to survey the areas of potential damage, monitor for damage during the excavation and construction period, and correct project-related ground-settlement damage (see V.J. Soils, Geology, and Seismicity, p. 500).

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell Street replacement housing site would not have dewatering. The building would consist of three stories with first-level surface parking; no underground parking is proposed. As discussed in IV.N. Soils, Geology, and Seismicity, p. 447, the foundation likely would be a slab foundation on continuous footings, and would need relatively shallow excavation (less than five feet below ground surface). Because groundwater levels across 2139 O'Farrell Street on the Geary Campus range from approximately 30 to 80 feet below ground surface, it is not expected that groundwater would be encountered by excavation for the Phase 1B/2139 O'Farrell Street building, and dewatering would not be necessary. Thus, no groundwater drawdown effects are anticipated by excavation for Phase 1B/2139 O'Farrell Street.

Phase 1C/2295 Geary Boulevard

Phase 1C/2295 Geary Boulevard would consist of eight stories and six levels of underground parking. Excavation as much as 65 feet below the ground surface is proposed for the parking garage and would intercept the groundwater table. Dewatering would be necessary, and

groundwater drawdown effects at this site would be similar to the effects estimated for the Phase 1A/2290 Geary Boulevard site across Geary Boulevard. Dewatering would cause soil settlements of less than one inch.[5]

Year 2010

The Phase 2A/1455 Divisadero Street would have dewatering needs similar to those for Phases 1A/2290 Geary Boulevard and 1C/2295 Geary Boulevard. The Phase 2A/1455 Divisadero Street building would consist of six stories with four levels of underground parking. Excavation for the underground parking garage is expected to range from about 40 to 55 feet deep. Excavation would encounter the groundwater table and dewatering would be necessary. Drawdown effects similar to those described above for Phase 1A/2290 Geary Boulevard and 1C/2295 Geary Boulevard would occur, and soil settlements would be less than one inch.[6]

The Phase 2B/New 350 St. Joseph's Avenue building may not require dewatering. The Phase 2B/New 350 St. Joseph's Avenue building would have five levels of underground parking that would require an excavation depth of 40 to 55 feet. Because the groundwater table is at a depth of approximately 75 feet at the Phase 2B/New 350 St. Joseph's Avenue site, excavation would not likely encounter groundwater and would not require dewatering.[7]

Control of Dewatering

As required by Section 3301.2 of the San Francisco Building Code, Kaiser would take reasonable precautions to protect adjacent structures from settlement damages resulting from dewatering. Prior to excavation of the Phase 1A/2290 Geary Boulevard, 1C/2295 Geary Boulevard, 2A/1455 Divisadero Street, and 2B/New 350 St. Joseph's Avenue sites, the Structural Engineer would evaluate the settlement effects on adjacent buildings and streets of groundwater drawdown caused by temporary dewatering. If the settlement effects are unacceptable to the Structural Engineer, the Structural Engineer would require other engineering methods such as

underpinning the building or installing a pier wall system to prevent unacceptable settlement of adjacent buildings and streets (see IV.N. Soils, Geology, and Seismicity, p. 445 and V.J. Soils, Geology, and Seismicity, p. 500).

Kaiser would require, through its general contractor, that appropriate dewatering systems for each building site would be designed by a licensed civil engineer, registered in the State of California, with experience in dewatering operations. Important engineering properties such as in-place soil densities, compressible layer locations and thicknesses, and grain size distributions of native and fill materials, would be used to determine the appropriate combination of dewatering techniques to be implemented. Dewatering surfaces would be controlled through an appropriate combination of grout, sheet piles, slurry trenches, or similar techniques. The dewatering rate and ground surface settlement would be monitored. The effect of the drawdown cone in the groundwater table would be estimated as precisely as possible and monitored to minimize settlement effects on adjacent structures and areas. The dewatering system would be established to confine drawdown to the proposed project area.

DISPOSAL OF CONTAMINATED DEWATERED GROUNDWATER

Year 2000 and Year 2010

The City would categorize the wastewater resulting from groundwater dewatering for the Phase 1A/2290 Geary Boulevard, Phase 1C/2295 Geary, Phase 2A/1455 Divisadero Street, and Phase 2B/New 350 St. Joseph's Avenue excavations as a batch wastewater discharge. The City would require Kaiser to obtain a permit to discharge into the City's sewer; this requires an application to be filed 45 days prior to the proposed commencement of the discharge. The City would require that Kaiser sample and test the proposed discharge, which must satisfy the limits specified by the City before the City allows the discharge to enter the sewer. Because of existing groundwater contamination by PCE and petroleum hydrocarbons at 2130 O'Farrell and the vacant Texaco site, the City would require Kaiser to test for specific substances related to hazardous waste contamination. Kaiser would perform the tests, and if the analysis revealed any

contaminant to be over its regulatory concentration limit, Kaiser would be required to perform pretreatment of the dewatered groundwater to meet the allowable concentration limit prior to discharge into the sewer system. If the limit cannot be met through pre-treatment, the contaminated dewatered groundwater must be disposed off-site at an approved facility.

EROSION AND SEDIMENTATION DURING CONSTRUCTION

Year 2000

Phase 1A/2290 Geary Boulevard

Except for approximately 1,200 square feet of front yards, the Phase 1A/2290 Geary Boulevard site is entirely covered with impermeable surfaces. Surface soil disturbance would occur during demolition of existing buildings and clearance of the Phase 1A/2290 Geary Boulevard site. Further soil disturbance would result from initial excavation of the site. Excavation is estimated to last a total of 4.25 months. If demolition and initial excavation were performed during San Francisco's rainy season of November through April, erosion could occur from the proposed project site during wet weather.

After demolition and site clearance, erosion could increase as more of the top and sides of the excavation face are exposed by soil removal. During wet weather, water would flow from ground level into the excavated below-surface area. It is expected that stormwater entering the excavation site would be contained within the excavation area and would not runoff into surrounding street sewers, thereby precluding sedimentation of storm sewers. However, erosion of the excavation face could pose other construction problems, such as additional dewatering of collected stormwater and possibly, pretreatment of dewatered stormwater prior to discharge.

The construction management trailers and material storage for Phase 1A/2290 Geary Boulevard would be the vacant lot on the corner of Post Street and Broderick Street. Construction activities such as washing and rinsing of equipment, and truck and heavy equipment traffic near and

adjacent to the project site would spread soil onto surrounding roads and walkways. Soil stockpiles in the staging area that are not properly covered and contained would be exposed to erosion. Material would be washed into the sewers during wet weather or if water were used to wash down the vicinity of building sites. Sedimentation from the project site could be discharged into the San Francisco Bay from the Southeast Water Pollution Control Plant (where runoff is conveyed for treatment before discharge) during wet weather overflows, and could result in possible conflicts with Basin Plan criteria for suspended material, settleable material, sediment, and turbidity.

Phase 1B/2139 O'Farrell Street

The Phase 1B/2139 O'Farrell Street building would have minor erosion and sedimentation effects, because the depth of excavation is not substantial (less than five feet). Erosion would be limited and sedimentation of sewers could occur at a lower magnitude. In addition, excavation is estimated to require about one month for completion, a relatively short amount of time. Any wet weather occurring during that period, however, potentially could induce erosion at the Phase 1B/2139 O'Farrell Street site. Construction staging would occur on site.

Phase 1C/2295 Geary Boulevard

The Phase 1C/2295 Geary Boulevard building is estimated to require approximately 4.5 months for completion of excavation. Erosion and sedimentation effects during excavation of this site would be similar to those of the Phase 1A/2290 Geary Boulevard site. Construction staging would be located on the southwest corner of Geary Boulevard and Divisadero Street on the former Texaco site. Soil remediation of this site is complete; runoff from this staging area would not pose water quality effects other than potential erosion and sedimentation effects.

Year 2010

Phase 2A/1455 Divisadero Street

Excavation for the Phase 2A/1455 Divisadero Street building would last about 3.75 months. Any wet weather occurring during this period could pose erosion and sedimentation effects for the site that are similar to those described above for the Phase 1A/2290 Geary Boulevard site. The construction staging area for the Phase 2A/1455 Divisadero Street building would be on site.

Phase 2B/New 350 St. Joseph's Avenue

Excavation for the Phase 2B/New 350 St. Joseph's Avenue building would last approximately 2.75 months. The construction staging area for this building would be on site. Erosion and sedimentation effects would be similar to the erosion and sedimentation effects described for the Phase 1A/2290 Geary Boulevard site.

Control of Erosion Effects on Water Quality

As required by the San Francisco Building Code and the Regional Water Quality Control Board, contractors must provide erosion control to minimize erosion of all excavation walls, and sedimentation of City storm sewers.[8] Standard Best Management Practices may be used by contractors, and could include diverting stormwater runoff away from excavated sites by using temporary curbs, installing sediment filter fences around wash areas, and/or a combination of the Best Management Practices found in any state-approved storm-water management handbook.

GROUNDWATER FLOW

Year 2000

The Phase 1A/2290 Geary Boulevard basement would intercept the groundwater table, as described above. The basement structure would not pose an obstruction to groundwater flow because both the unconfined and the confined aquifers are composed of sandy material. The sandy material would allow more groundwater flow-through than a finer material consisting of smaller particles (silt and clay). Thus, groundwater would flow around the basement. Because the underground parking garage would be subject to the forces of earth pressure and groundwater pressure, the basement walls and floors for the Phase 1A/2290 Geary Boulevard building would be designed to withstand lateral and upward earth pressure as well as hydrostatic pressure of the groundwater.

As discussed above, the Phase 1B/2139 O'Farrell Street building would not intercept the groundwater table and would have no effect on groundwater flow.

Similar to the Phase 1A/2290 Geary Boulevard building, the Phase 1C/2295 Geary Boulevard building would have a six-level underground parking garage that would intercept the groundwater table. As for the Phase 1A/2290 Geary Boulevard building, groundwater would flow around the Phase 1C/2295 Geary Boulevard basement. The Phase 1C/2295 Geary Boulevard basement also would be designed to withstand earth pressure, and hydrostatic pressures for the portion of the basement below the groundwater table.

Year 2010

The Phase 2A/1455 Divisadero building would intercept the groundwater table. As for the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings, groundwater would flow around the Phase 2A/1455 Divisadero Street basement. As discussed in the

Dewatering sub-section above, the Phase 2B/New 350 St. Joseph's Avenue building would not likely intercept the groundwater table.

SURFACE HYDROLOGY EFFECTS

The general pattern of runoff would not be altered, and peak runoff would change little under the proposed project. Most runoff from the campus would be generated by impervious surfaces such as roofs and paved surfaces.

Year 2000

Phase 1A/2290 Geary Boulevard

About 1,200 square feet of existing front yard space would be displaced by construction of the Phase 1A/2290 Geary Boulevard building, which would cover this entire site. A landscaped deck is proposed at the Phase 1A/2290 Geary Boulevard building, which would basically consist of planter groupings over the underground garage.[9] The planters would allow initial detention of rainwater. Ultimately, the rainwater would result in surface runoff into the sewer, where it would be conveyed to the Southeast Water Pollution Control Plant for treatment before discharge. Runoff amounts would not change with the Phase 1A/2290 Geary Boulevard building and would not affect the ability of the Southeast Water Pollution Control Plant to treat stormwater runoff during wet weather.

Phase 1B/2139 O'Farrell Street/2139 O'Farrell Street

Runoff from the Phase 1B/2139 O'Farrell Street building site would change little after construction of the building. The existing medical office building on the site contains permeable open space consisting of narrow strips of landscaped areas on the sidewalk and edging the building. The Phase 1B/2139 O'Farrell Street building would contain a similar amount of

permeable landscaped area in the rearyard, resulting in about the same amount of runoff as currently exists. Thus, the amount of stormwater runoff that would enter the sewer system would not change and would not affect the ability of the Southeast Water Pollution Control Plant to provide continued treatment during wet weather.

Phase 1C/2295 Geary Boulevard

The Phase 1C/2295 Geary Boulevard site is currently occupied by 2200 O'Farrell, 2200 Annex, and 2190 O'Farrell with associated landscaping. The Phase 1C/2295 Geary Boulevard building would have a landscaped courtyard above the utility right-of-way (see IV.K. Utilities and Community Services, pp. 432 - 433, for a discussion of the utility right-of-way). The courtyard would contain grouped plantings within a concrete area and would not be permeable. Surface runoff would not change significantly and would not add additional stormwater runoff to the city's sewer system or to the Southeast Water Pollution Control Plant.

Year 2010

The Phase 2A/1455 Divisadero Street building, would be constructed on the combined vacant Texaco site and the 1401-17 Divisadero Street site. Covering the Texaco site would increase the amount of impervious area, and would result in increased runoff from the proposed project site. However, a gas station formerly occupied the Texaco site, which was almost entirely surfaced. Thus, the change in runoff is likely no different from that which occurred historically and would not affect the capacity of the City's sewers or of the Southeast Water Pollution Control Plant during wet weather. The Phase 2B/New 350 St. Joseph's Avenue building would replace the existing 350 St. Joseph's building, with few changes in the landscaped area. The amount of runoff from the Phase 2B/New 350 St. Joseph's Avenue site after construction would be similar to the existing runoff. Runoff conditions at the end of Phase 2 would be similar to existing conditions because little change would occur to the impervious surface area.

SPILL CONTINGENCY PLANS

Kaiser currently implements handling and disposal procedures that would prevent spills of liquid hazardous materials. Small amounts (about five gallons) of liquid hazardous material could be transported between buildings at any one time. If any liquid hazardous material is spilled, Kaiser would notify and coordinate with the Regional Board to determine the appropriate measures to be taken.

Year 2000

The French Campus would be used for outpatient services during the construction period for the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary buildings. When the Phase 1 buildings are complete, outpatient services at the French Campus would relocate into the new buildings, and hazardous materials would be transported from the French Campus to the Geary Campus. Transport of all hazardous materials would be performed by a licensed hazardous material hauler who would meet U.S. Department of Transportation requirements. Please see IV.J. Hazardous Materials, pp. 415 - 420 for a discussion of hazardous material transportation.

Year 2010

As discussed in IV.J. Hazardous Materials, p. 423, occupancy of the Phase 2A/1455 Divisadero Street building would increase the use of hazardous materials at the Geary Campus by about 27 percent. Kaiser would implement its Emergency Response Plan if spills of hazardous materials occur. The Plan would require Kaiser employees to implement clean-up and contains guidance for handling the clean-up. The Plan also requires Kaiser employees to notify appropriate Kaiser personnel (i.e., Chief Engineer, Environmental Health and Safety personnel) and regulatory agencies, including the San Francisco Fire Department (see IV.J. Hazardous Materials, p. 414 and IV.K. Utilities and Community Services, p. 425), depending on the location and size of spill.

Uses proposed at the Phase 2B/New 350 St. Joseph's Avenue building are administrative and office-related uses. This building would replace the existing 350 St. Joseph's building which currently uses hazardous materials. No hazardous materials would be used by the Phase 2B/New 350 St. Joseph's Avenue building, and no hazardous materials spills would be related to use of the Phase 2B/New 350 St. Joseph's Avenue building.

WASTEWATER PERMITTING

Year 2000

As discussed in IV.K. Utilities and Community Services, p. 429, the proposed project would generate 0.064 mgd, or 0.043 million gallons more wastewater per day than existing 1995 levels. As required under its existing Class I industrial wastewater discharge permit, Kaiser must report changes to the City's Department of Public Works, Bureau of Environmental Regulation and Management at least 30 days prior to any substantial change in volume.[10] In addition, the permit requires Kaiser to report changes in wastewater characteristics. Typically, hospital or medical office wastewater discharge contains silver or mercury, which are heavy metals that are regulated at the state and federal levels. Mercury is used in many different kinds of preservation solutions and in blood chemistry. Silver is in a wide variety of products used by hospitals.[11] At Kaiser, some silver is reclaimed from film processing. Because Phase 1 outpatient services uses would be the same as existing uses, it is not expected that the Phase 1 buildings would discharge chemicals or other substances in the wastewater stream that differ from those currently generated in the proposed project area.

The wastewater permit currently applies to Kaiser Hospital at 2425 Geary Boulevard and to the 2200 O'Farrell outpatient services building only. During construction of the new Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard buildings, Kaiser proposes temporary relocation of physicians and outpatient services to the French Campus. The French Campus currently holds a Class II permit, which is a permit that the City issues to industrial dischargers of less than 25,000 gallons per day. This permit would need to be amended or renewed, depending

on the changes in volume and character of the discharge caused by relocation of outpatient services to the French Campus. Kaiser would need to notify the City's Bureau of Environmental Regulation and Management, which would determine the appropriate course of action. Similarly, Kaiser would need to again notify the City's Bureau of Environmental Regulation and Management of the volume and character changes in the new wastewater discharge from the Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard outpatient services buildings, once departments begin moving into the buildings.

Year 2010

In Phase 2, Phase 2A/1455 Divisadero Street and Phase 2B/New 350 St. Joseph's Avenue buildings would increase wastewater generation by 0.03 mgd above the 1995 levels for a total change of 0.27 million gallons per day. As with Phase 1, Kaiser would need to report this change in volume and other changes in discharge character to the City's Bureau of Environmental Regulation and Management at least 30 days prior to these changes.

PERMIT COMPLIANCE

Year 2000 and 2010

Whether the City issues Kaiser a new or amended industrial wastewater discharge permit, Kaiser would be held to the same concentration-based (amount of pollutant per volume of water) water quality standards as all other Significant Industrial Users. These water quality standards generally include quantitative discharge limits on toxic pollutants such as mercury and silver; physical parameters such as pH levels (acidity or alkalinity) and turbidity; and organic parameters such as oil and grease. Qualitative water quality requirements are also included as conditions in permits for Significant Industrial Users. The expansion of outpatient services would generate increased pollutants. However, the increased volume of wastewater would act to

dilute the additional amount of pollutant that could be generated. Thus, it is expected that Kaiser could comply with the same concentration limits under Phase 1 and Phase 2 conditions.

CUMULATIVE EFFECTS TO SAN FRANCISCO BAY

Although Kaiser would be able to comply with its own permitting requirements, the project would add additional pollutants to the system. Because the City has not yet solved the problem of overflows of primary-treated wastewater during wet weather into Islais Creek from the Southeast Water Pollution Control Plant, the additional wastewater generated by the project could contribute to the overflows. Please see Appendix L. Hydrology and Water Quality, p. A.123 for further discussion of these overflows. Primary-level wastewater treatment includes physical removal of solids and sediments through settling and skimming. Incidental overflows are typically comprised of 90 percent stormwater and 10 percent sanitary wastewater. The pollutant amount that Kaiser could contribute to that 10 percent would be minimal.[12]

NOTES - Hydrology and Water Quality

1. Kleinfelder, Inc. *Geotechnical Investigation Report, Proposed Kaiser Expansion, Eden Property (Phase 1A), San Francisco, California*, November 28, 1995, p. 13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

2. a) Kleinfelder, Inc. *Geotechnical Investigation Report, Proposed Kaiser Expansion, Eden Property (Phase 1A), San Francisco, California*, September 25, 1995, pp. 12-13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

   b) Kleinfelder, Inc. *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus), San Francisco, California*, September 15, 1995, pp. 12-13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

3. a) Kleinfelder, Inc. *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Kaiser-Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

b) Kleinfelder, Inc. *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

c) Kleinfelder, Inc. *Phase I Preliminary Environmental Site Assessment and Building Materials Survey Report, 2139 O'Farrell Street Site, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

4. a) Kleinfelder, Inc. *Geotechnical Investigation Report, Proposed Kaiser Expansion, Eden Property (Phase 1A), San Francisco, California*, November 28, 1995, pp. 9, 12-13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

b) Kleinfelder, Inc. *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus), San Francisco, California*, September 15, 1995, pp. 12-13. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

5. Kleinfelder, Inc. *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus), San Francisco, California*, September 15, 1995, p. 12. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

6. Kleinfelder, Inc. *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus), San Francisco, California*, September 15, 1995, p. 12. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

7. Kleinfelder, Inc. *Preliminary Geotechnical Investigation Report for Proposed Kaiser Hospital Developments (Geary Campus), San Francisco, California*, September 15, 1995, Plates 2-4, A-3. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

8. City and County of San Francisco Municipal Code, *Building Code*, adopted December 14, 1995, Ch. A33.

9. Keith Millay, Project Architect, Anshen and Allen, telephone conversation, November 16, 1995.

10. City and County of San Francisco, Department of Public Works, Bureau of Environmental Regulation and Management, Permit No. 94-0256, Industrial Wastewater Discharger - Class I Permit, Kaiser Foundation Hospital - Geary Campus, effective September 8, 1994, expires September 7, 1997.

11. Steven Todd, Civil Engineer/Inspector for Kaiser, Bureau of Environmental Regulation and Management, Department of Public Works, City and County of San Francisco, telephone conversation, November 16, 1995.

12. Frank Filice, Principal Analyst, Planning and Permitting, Department of Public Works, City and County of San Francisco, telephone conversation, November 20, 1995.

P. CONTAMINATED SOILS AND HAZARDOUS WASTE

This section discusses the construction impacts due to soil and structural contamination at the Kaiser project sites. Different phases of the proposed project would involve development of different portions of the Geary Campus. While the specific contaminants and levels of concern to be encountered would vary during the different development phases, the types of impacts expected would be consistent.

In general, exposure to hazardous materials can cause various short-term or long-term health effects. Health effects of exposure to hazardous materials can be specific to each chemical or combination of chemicals. Possible health effects of exposure may be acute (immediate, or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Acute effects, resulting from exposure, can result in a range of effects from minor to major, such as nausea, vomiting, headache, dizziness, or burns. Chronic exposure to hazardous materials can result in systemic damage or damage to specific organs, such as the lungs, liver, or kidneys. Birth defects and cancer are generally caused by chronic, rather than acute, exposure.

Construction workers typically are at greatest risk of exposure to contaminated soil or groundwater. Accidents or spills during transport of contaminated materials could have the potential to expose the public and the environment to the chemical compounds. Any contaminated soil that might require removal from the site would be transported under manifest by licensed haulers. Additional discussions on hazardous waste transport at Kaiser are included in IV.J. Hazardous Materials, pp. 415 - 420. General types of potential construction impacts due to project activities include impacts to human health and environment from contaminated soil gases, soil and groundwater during excavation, grading, site preparation, site investigation, and site remediation; and from contaminated building materials during demolition.

Construction workers also could be exposed to hazardous materials from structural contamination. Demolition of buildings or structures contaminated with asbestos, lead-based paint, or PCBs, which are the most common hazardous materials found in the older buildings, could cause adverse health impacts if human exposure is permitted. Following federal and state

occupational safety standards minimizes health risks to construction workers. The potential construction impacts caused by soil contamination, or asbestos, lead and PCBs in the structures to be demolished are discussed below.

CONTAMINATED SOILS

The soil sampling results discussed in III.P. Contaminated Soils and Hazardous Waste indicate that there are no hazardous soils at the Geary Campus. However, contamination incidents have occurred at the former Texaco Station property and the parking garage at 2130 O'Farrell Street; remediation activities at these sites are ongoing. Construction workers could risk exposure to contaminated soils during excavation that may not have been detected during the limited sampling done for site characterization. Cal-OSHA requires that all safety issues be addressed in a Health and Safety Plan (see pp. 471 - 472).

There also is a potential for encountering Underground Storage Tanks (USTs) during excavation activities at various locations at the Kaiser Geary Campus. Because the contents of the USTs may be hazardous, materials stored in an UST that is unexpectedly uncovered, disturbed, or damaged during excavation could threaten the health and safety of site workers. A relatively high percentage of older USTs have leaked at some point in their lifetime. A leaking UST could pose threats to the environment and could also pose a possible explosion hazard.

If present, USTs must be closed according to regulatory guidelines provided by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the City and County of San Francisco Department of Public Health that are based on Title 23 of the California Code of Regulations and Article 21 of the San Francisco Health Code (the San Francisco tank removal ordinance). As required by these regulations, Kaiser would address safety issues related to exposure to contaminated soils caused by leaking USTs, by undertaking additional site studies to identify and remove any USTs that may be present at the Geary Campus prior to initiating any demolition activities.

Removal activities could pose both health and safety risks, such as the exposure of workers, tank handling personnel, and the public to tank contents or vapors. Risks posed by USTs would be minimized by closing the tank according to the applicable regulatory requirements. Such requirements include removing and properly disposing of any remaining hazardous materials in the tank, having the tank removal supervised by regulatory agencies, testing the soil under the tank for contamination, recycling or disposing of the discarded tank, removal and disposal of any contaminated soil or ground water, and filing a tank closure report with the (RWQCB) and the City and County of San Francisco, Department of Public Health. The San Francisco Fire Department requires a Hazardous Materials Management Plan to be prepared and implemented for all excavation activities involving hazardous materials. The Hazardous Materials Management Plan must include a description of any additional sampling that would be performed for further site characterization, planned hazardous materials handling methods, and removal and disposal procedures. The Hazardous Materials Management Plan would require that all hazardous materials handling, removal and disposal be undertaken in accordance with applicable federal, state and local hazardous materials laws and regulations. Kaiser has successfully removed hazardous waste from the Geary Campus in past years without incident and in compliance with all applicable regulations.

Existing federal, state, and local environmental and worker safety laws would require Kaiser to ensure that the construction contractor provides the City with a Health and Safety Plan prepared by a certified industrial hygienist, and that it be appropriately implemented. (See Appendix I. Hazardous Materials, Table IX.I.1, p. A.91 for hazardous waste handling requirements legislation, and pp. A.94 - A.95 for a brief description of each law.) Kaiser must comply with regulatory requirements by including a Health and Safety Plan requirement in its construction contracts for the proposal project. As required by federal and Cal-OSHA regulations for hazardous materials/waste health and safety plans, the Plan must establish policies and procedures to protect workers and the public from potential hazards posed by hazardous materials at the project site. The Site Health and Safety Plan must include items applicable to site conditions, such as identification of contaminants, potential hazards, material handling procedures, dust suppression measures, personal protection clothing and devices, controlled access to the site, health and safety training requirements, monitoring equipment used

during construction to verify health and safety of workers and the public, measures to protect public health and safety, and emergency response procedures.

Year 2000

Phase 1A/2290 Geary Boulevard

Phase 1A/2290 Geary Boulevard involves demolition of all of the buildings on this site and construction of a new building. As discussed in III.P. Contaminated Soils and Hazardous Waste, p. 251 the soil samples did not indicate presence of contamination; Kleinfelder's report on site reconnaissance visit indicate the potential of encountering USTs during excavation activities since heating oil tanks were often installed at residences in the past.[1]

Kleinfelder also indicated the potential of encountering hydraulic fluid in the soil beneath 2266 Geary Boulevard.[2] If soil contaminated with hydraulic fluid is encountered during excavation activities, the contaminated soil would be removed and disposed.

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell Street would involve demolition of the building at 2139 O'Farrell Street and construction of an over-garage residential structure. Construction of the residential structure would require minimal excavation. Therefore, impacts on construction workers due to excavation would not be expected.

Phase 1C/2295 Geary Boulevard

Phase 1C/2295 Geary Boulevard would involve demolition of the parking garage at 2190 O'Farrell Street and the outpatient services building at 2200 O'Farrell Street. Construction of

the building during this phase would require excavation of soil on the parcels that were occupied by the structures demolished. The soil investigation discussed in III.P Contaminated Soils and Hazardous Waste, p. 252, indicate that there is no contamination in the area.

Year 2010

Phase 2A/1455 Divisadero Street

This phase involves construction at the former Texaco Service Station site and at 1401-17 Divisadero Street site. Several USTs were removed from the former Texaco Service Station site during its closure as discussed in III.P. Contaminated Soils and Hazardous Waste, p. 255. Texaco has performed a comprehensive soil excavation and removal program on the site.[3] The excavation activities have removed known soil contamination at the site. Subsequent testing by Kleinfelder, confirms that the soil is non-hazardous and no further soil remediation is necessary. No impacts on construction workers are anticipated during the development of this site.

During Kleinfelder's site visit, a metal cover and what appeared to be a fill pipe for an UST were observed in the sidewalk in front of 1409 Divisadero Street. Since heating oil tanks were often installed at residences in the past, there is a possibility of encountering an UST during excavation at the site, even though there were no indications from the record search of any past use of USTs. The potential impacts on construction workers, soil, and groundwater due to encountering an unexpected UST are discussed above.

Phase 2B/New 350 St. Joseph's Avenue

This phase involves demolition of the building at 350 St. Joseph's Avenue and construction of a new building at that parcel. The site investigation at the Geary Campus does not indicate soil contamination or potential use of USTs at this parcel, therefore, no construction impacts to the construction workers from soil contamination during excavation would be expected.

STRUCTURAL CONTAMINATION

As discussed in III.P. Contaminated Soils and Hazardous Waste, pp. 257 - 263, the buildings at the Geary Campus were surveyed for asbestos, lead and PCBs which may impact the construction workers on-site during demolition. Results of the survey are presented in Tables IX.M.3 through IX.M.5, pp. A.128 - A.130 of Appendix M.

Asbestos

Asbestos, a naturally occurring fibrous material, was used in the past in many building materials for its fireproofing and insulating properties. Asbestos fibers could cause adverse health effects on on-site workers. Medical evidence published in 1986 by USEPA suggests that exposure to asbestos fibers is harmful to human health. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making the friable materials the greatest health threat. Asbestos can cause lung cancer and asbestosis[4]. The USEPA believes that exposure to all airborne asbestos fibers should be reduced to the greatest extent possible. The California Department of Toxic Substances Control has classified friable, finely divided, and powdered wastes containing greater than 1 percent of asbestos as hazardous waste.[5] If material is not friable, it is considered to be a nonhazardous waste, regardless of its asbestos content, and thus can be handled as ordinary construction waste. There exists some uncertainty regarding the hazardous nature of chrysotile asbestos. Chrysotile is a white mineral with a composition that tends to be soluble and disappear in tissue. Fibers tend to be curly and excluded from the periphery of the lung;[6] observing a conservative approach, chrysotile is treated as hazardous. Prior to issuance of a building permit for partial or complete demolition of existing buildings, the San Francisco Department of Building Inspection requires evidence that all asbestos have been removed in accordance with federal and state regulations.

As required by Cal-OSHA, asbestos-containing building materials (ACBMs) must be removed prior to demolition of the buildings at the Geary Campus and must be removed by a licensed asbestos abatement contractor registered with Cal-OSHA. The contractor is required by law to

manage asbestos materials appropriately. Agencies having regulatory authority over asbestos management include Cal-OSHA, US Environmental Protection Agency, California Department of Toxic Substances Control, and the Bay Area Air Quality Management District.

Cal-OSHA requires abatement contractors to work under Abatement and Demolition Project Specifications that are prepared by a California Certified Asbestos Consultant. The Abatement and Demolition Project Specifications stipulate handling, management, and removal procedures for asbestos during demolition of structures containing asbestos. Because access to the roofs of the buildings at 2256 and 2266 Geary Boulevard was not possible during Kleinfelder's investigation, the roofing materials at those buildings must be sampled and analyzed to verify the presence of asbestos. This would be performed during preparation of the Abatement and Demolition Project Specifications. As previously discussed, a Health and Safety Plan must be in place prior to commencing work on any contaminated structure or building.

Lead

Lead may cause both acute and chronic toxicity in human bodies.[7] Lead poisoning in adults is usually occupational due mainly to inhalation of lead dust or fumes.[8] Fed-OSHA has established regulations for lead in construction work. The Lead Construction Standard, Federal OSHA (29 CFR 1926.62) and Cal-OSHA (8CCR 1532.1), applies to all construction work where an employee may be occupationally exposed to lead. The construction work that the standard covers includes:

- demolition or salvage of structures where lead or materials containing lead are present;
- removal or encapsulation of materials containing lead; and
- new construction, alteration, repair or renovation of structures or substrates that contain lead or materials containing lead.

The Lead Construction Standard establishes a Permissible Exposure Limit (PEL) of 50 micrograms per cubic meter of air for an employee over an 8-hour time-weighted average. The

standard does not list a minimum concentration of lead in a material to be considered as lead-containing material, therefore, all work with material containing a concentration of lead above the analytical laboratory's reporting limit must be treated as having a potential to exceed the PEL unless it can be proved that the air concentrations of lead being produced is below the PEL.

Cal-EPA defines a waste which contains lead as hazardous based on either containing greater than or equal to 1,000 parts per million (ppm) lead which is the TTLC for total lead or greater than or equal to 5 ppm lead which is the Soluble Threshold Limit Concentration (STLC) for soluble lead. STLC are levels that should not be exceeded in an aqueous solution or leached[9] from soil.

Kleinfelder's lead-based paint survey was limited in scope because of access restrictions; additional sampling would be conducted by a qualified environmental specialist retained by Kaiser to further assess the specific nature and extent of lead-based paint in the structures on-site prior to demolition of the buildings at the Geary Campus. As required by Cal-OSHA, DTSC and BAAQMD regulations and the applicable federal, state, and local laws, including Titles 22 and 23 of the California Code of Regulations and the City's Hazardous Materials Ordinance, an Abatement Plan, including the results of the additional sampling, must be prepared by the qualified environmental specialist. Demolition activities expected to disturb lead-based paint materials must be performed by licensed and certified contractors. The contractors must manage the lead-based paint on building materials in accordance with applicable law.

Polychlorinated Biphenyls

PCB is a highly stable hazardous chemical that is known to cause long-term deleterious environmental and health effects. Toxic effects in humans include pigmentation of skin and nails, excessive eye discharge, swelling of eyelids, gastrointestinal disturbances and cancer. Examples of toxic symptoms in animals include weight and hair loss and reduced ability to reproduce. PCBs, formerly used primarily as electrical insulators in electrical equipment, were

banned in 1976 for future use. In commercial buildings, PCBs might be found in transformers and light ballasts, and would be removed prior to demolition of the buildings.

The buildings at the Geary Campus would be inspected to identify the light fixtures that have polychlorinated biphenyls (PCBs) in the ballasts. As required by federal regulations for handling materials with PCBs contained in Title 40 of Code of Federal Regulations, light fixtures with PCBs would be removed for disposal. PG&E would locate and test on-site transformers for PCBs.[10] All transformers with PCBs would be removed prior to demolition.

Year 2000

Phase 1A/2290 Geary Boulevard

Phase 1A/2290 Geary Boulevard involves demolition of the existing buildings on the site for construction of a new outpatient services building. The results of the site investigations discussed in III.P. Contaminated Soils and Hazardous Materials, pp. 258 - 259, indicate that both friable and non-friable Asbestos Containing Building Materials (ACBMs) are present in all on-site buildings. Concentrations of chrysotile asbestos in the ACBMs ranged between less than 1 percent to 90 percent. Lead-based paint was found in 35 out of 42 samples collected from the buildings at this site. Lead-based paint was detected in all on-site buildings except at 2280 Geary, 2242 Geary and 2238 Geary. Kleinfelder's survey of the buildings on the site also indicates the possibility of PCBs in the ballasts of the light fixtures and in the transformers. Potential impacts on construction workers due to exposure to structural contamination are discussed above.

Phase 1B/2139 O'Farrell Street

Phase 1B/2139 O'Farrell Street would involve demolition of the building at 2139 O'Farrell Street and constructing an over-garage residential structure. The apartment building at 1401-17

Divisadero Street would also be demolished after occupancy of the residential structure. The buildings at 2139 O'Farrell Street and at 1401-17 Divisadero Street have some building materials that contain asbestos, lead and PCBs, as discussed in III.P. Contaminated Soils and Hazardous Waste, p. 260 and pp. 262 - 263. The potential impacts on construction workers involved in demolition of these buildings are discussed above.

Phase 1C/2295 Geary Boulevard

Phase 1C/2295 Geary Boulevard would involve demolition of the parking garage at 2190 O'Farrell Street and the building at 2200 O'Farrell Street. A new building would be constructed at the Geary Campus site. Kleinfelder noted several suspected asbestos-containing materials and lead-based paint during their site visit at the structures that would be demolished during this phase, as discussed in III.P. Contaminated Soils and Hazardous Waste, p. 261. There are indications that light fixtures containing PCBs may also be present in these buildings. The potential impacts on construction workers involved in demolition of these buildings are discussed above.

Year 2010

Phase 2A/1455 Divisadero Street

This phase does not involve demolition of any structures. There would be no impacts on construction workers due to structural contamination.

Phase 2B/New 350 St. Joseph's Avenue

This phase involves demolition of the building at 350 St. Joseph's Avenue and construction of a new building. The building that would be demolished is known to have building materials that

contain asbestos and lead and potentially PCBs, as discussed in III.P. Contaminated Soils and Hazardous Waste, p. 263. Potential impacts on construction workers due to demolition of the building are discussed above.

NOTES - Contaminated Soils and Hazardous Waste

1. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

2. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Eden Property, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

3. Kleinfelder, Inc., *Environmental Boring Investigation Report, Kaiser - Geary Campus, Kaiser Development Project, San Francisco, California*, August 31, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

4. A disease of the lungs caused by the inhalation of asbestos fibers, an irritant mineral.

5. California Code of Regulations, Title 22, Division 4.5, Section 66261.24 and California Department of Health Services Toxic Substances Control Program, Waste Evaluation Unit (1990), *Asbestos Handling, Transport and Disposal Fact Sheet.*

6. Abelson, Philip H., "The Asbestos Removal Fiasco," *Science*, Number 4946, Volume 247, March 2, 1990.

7. Merck & Company, *Merck Index*, Eleventh edition, Rahway, New Jersey, 1989.

8. Merck & Company, *Merck Index*, Eleventh edition, Rahway, New Jersey, 1989.

9. Leaching is the action of percolating liquid in order to separate the soluble components.

10. Kleinfelder, Inc., *Phase I Preliminary Environmental Site Assessment and Building Materials Survey, Geary Campus, San Francisco, California*, August 30, 1995. A copy of this report is on file and available for public review at the Office of Environmental Review, Department of Planning, 1660 Mission Street, San Francisco.

Q. GROWTH INDUCEMENT

This section discusses the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included are characteristics of the project that would remove obstacles to growth, or would encourage and facilitate other activities that would induce growth.

YEAR 2000

Medical Space

Phase 1 of the proposed project would demolish 136,500 sq. ft. of Kaiser outpatient service space on the Geary campus and construct 610,000 sq. ft. for a net change of 473,500 sq. ft. Kaiser-owned space. Additionally, Kaiser would vacate 288,100 sq. ft. of owned and leased occupied outpatient space including those on the Eden Property, the French Campus, various off-campus leases, the 2350 Geary Boulevard building, and 350 St. Joseph's Avenue building and relocate those functions to the newly constructed Phase 1 buildings on the Geary Campus.

Housing and Population

Chapter IV.F. Population, Employment, and Housing, presents the direct effects of the proposed project. These are summarized below and the indirect effects are discussed here.

Phase 1 would also demolish 51,100 sq. ft. of space used by establishments other than Kaiser (residential, commercial, and office) at 2290 Geary Boulevard and 1401-17 Divisadero Street. Eight units would be demolished at 2290 Geary Boulevard. Twenty-one residential units would be demolished at 1401-17 Divisadero Street. Kaiser would build a 21-unit replacement building at 2139 O'Farrell Street; the existing tenants at 1401-17 Divisadero Street would be offered the

right of first refusal to occupy the new units. The net change in direct population impacts would be minimal because the new units would be comparable in size.

Construction Employment

The proposed project's demolition and construction activity would create 150 on-site construction jobs per year (see IV.F. Population, Employment, and Housing, p.343 . Since Phase 1 construction employment is temporary in nature, the proposed project would maintain the production and employment activities of the existing construction goods and services. The proposed project would provide new employment opportunities for individuals who wish to enter the apprenticeship programs of various construction trades. Demolition and construction activity would also stimulate or maintain *indirect* construction-related employment in goods production and services provision. The indirect employment would amount to another 50 jobs per year.[1] The combined consumption income of the direct and indirect jobs related to the proposed project would *induce* through employee household consumption spending the maintenance of another 180 jobs per year.[2]

Employment

Kaiser's projected employment change over this period related to the outpatient services of the proposed project involves projected growth of approximately 80 employees from a total of 1,320 in 1995 employees (excluding the Hospital) to 1,400 employees in the year 2000. Kaiser projects the net on-site increase in total employment at 430 employees (500 Kaiser employees less 65 existing on-site employees other than Kaiser displaced to other locations in the City), while it projects a relocation of 420 Kaiser employees from off-site locations (the French Campus and leases).

Assuming the relocation of existing on-site employees other than Kaiser to other locations within San Francisco, the net increase of 80 new Kaiser jobs would be expected to create a maximum of

14 *indirect* jobs within San Francisco related to health services delivery demand for goods and services.[3] The household consumption of the 80 new employees would be expected to create about another 85 *induced* jobs within San Francisco.[4]

As developed in IV.F. Population, Employment, and Housing, pp. 346 - 347, the proposed project's new direct employees would be expected to create 15 new households in San Francisco, thereby inducing the construction of 15 new residential units. Based on San Francisco's projected average household size in year 2000, these new employees would increase the City's population by about 36 new residents.[5]

Obstacles to Population Growth

The proposed project would not remove obstacles to population growth such as community service facilities of wastewater treatment capacity or water transmission and supply.

Other Activities

The proposed project would not encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. Chapter IV.A. Land Use and Zoning, p. 267 notes a trend towards medical-related and business support uses in the area between Kaiser and UCSF/Mount Zion Medical Centers. The proposed project would not be anticipated to substantially increase or accelerate this trend, nor to intensify it in a way that would somehow transform immediate adjacent and nearby land uses.

In general, Kaiser employees make some lunch and personal services-related expenditures at nearby establishments. Kaiser has no cafeteria on-site, in its curent outpatient service building at the Geary Campus. Mobile snack and coffee vendors presently operate at the open space which is the Broderick right-of-way. Food for meetings is served by outside caterers. Most of Kaiser's

administrative and medical supplies are met internally through purchases from a central warehouse facility in Livermore that serves the Northern California Region.[b]

YEAR 2010

Medical Space

The proposed project would demolish an additional 31,340 sq. ft. of Kaiser outpatient space on the Geary Campus and construct an additional 224,000 sq. ft. for a net change of 192,660 sq. ft. Kaiser space.

Housing and Population

Phase 2 would not demolish or build housing, and therefore, Phase 2 would not directly change the City's housing stock or population.

Construction Employment

The proposed project's demolition and construction activity would create 47 on-site construction jobs annually during Phase 2 (see IV.F. Population, Employment, and Housing, p. 344). Demolition and construction activity would also stimulate or maintain indirect construction-related employment in goods production and services provision. The indirect employment would amount to another 16 jobs.[7] The combined consumption income of the direct and indirect jobs related to the proposed project would induce through employee household consumption spending the maintenance of another 100 jobs.[8]

Employment

Kaiser's projected employment change over this period related to the outpatient services of the proposed project involves projected growth of approximately 300 employees from a total of 1,400 in the year 2000 to 1,700 in the year 2010. All of the increase will be on the Geary Campus, with employment in off-site leases remaining constant at 40 employees.

The net increase of 300 new Kaiser jobs would be expected to create a maximum of 50 indirect jobs within San Francisco related to health services delivery demand for goods and services.[9] The household consumption of the 300 new employees would be expected to create about another 372 induced jobs within San Francisco.[10]

As developed in IV.F. Population, Employment, and Housing, p. 348, the proposed project's new direct employees would be expected to create 54 new households in San Francisco, thereby inducing the construction of 54 new residential units. Based on San Francisco's projected average household size of 2.35 persons per household in year 2000, these new employees would increase the City's population by about 130 new residents.[11]

Obstacles to Population Growth

Phase 2 of the proposed project would not increase the capacity of such community service facilities as wastewater treatment capacity or water transmission and supply and this would not remove obstacles to population growth or increase the size of the future population that could be served.

Other Activities

Phase 2 of the proposed project would not encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. Kaiser's administrative

and medical purchases are made from its central distribution warehouse in Livermore. This minimizes the potential to attract businesses to adjacent land uses as discussed above for Phase 1.

NOTES - Growth Inducement

1. Indirect employment calculated with Type I multiplier (1.34) for Construction, Maintenance, and Repair sector (1.34). ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

2. Induced employment calculated with midpoint between Type I and Type II multipliers (2.22) for the Construction, Maintenance, and Repair sector to estimate San Francisco jobs. ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

3. Indirect employment calculated with Type I multiplier (1.34) for Health Services sector (1.17). ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

4. Induced employment for the County of San Francisco calculated with midpoint between Type I and Type II multipliers (2.08) for the Construction, Maintenance, and Repair sector to estimate San Francisco jobs. ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

5. Average population per household of 2.37 for year 2000. ABAG, *Projections '94*, p. 211.

6. John Osborne, Facilities Planner, Kaiser Foundation Health Plan, Inc., telephone conversation, March 25, 1996.

7. Indirect employment calculated with Type I multiplier (1.34) for Construction, Maintenance, and Repair sector. ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

8. Induced employment for the County of San Francisco calculated with midpoint between Type I and Type II multipliers (2.22) for the Construction, Maintenance, and Repair sector to estimate San Francisco jobs. ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

9. Indirect employment calculated with Type I multiplier (1.34) for Health Services sector (1.17). ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

10. Induced employment for the County of San Francisco calculated with midpoint between Type I and Type II multipliers (2.08) for the Construction, Maintenance, and Repair sector to estimate San Francisco jobs. ABAG, *1987 Input-Output Model and Economic Multipliers for the San Francisco Bay Region*, Working Paper 95-3, March 1995, Table 6, p. 48.

11. Average population per household of 2.37 for year 2000. ABAG, *Projections '94*, p. 211.

V. MITIGATION MEASURES

A. ARCHITECTURAL RESOURCES

IMPROVEMENT MEASURE PROPOSED AS PART OF THE PROJECT

No significant architectural resource impacts have been identified. The following measure would address issues of concern.

Because construction of Phase 1 and Phase 2 would not remove any existing buildings identified as significant architectural resources, no mitigation measures would be required. However, 2250 Geary Boulevard and 2256 Geary Boulevard, to be removed as part of the project, are older buildings associated with early development of the project vicinity, and possess architectural character representative of the period.

- To document 2250 Geary Boulevard and 2256 Geary Boulevard prior to demolition, the project sponsor would prepare a photographic record of these two structures. The photographs would be exterior views of each facade of each building. The exterior views would include full-facade views and detailed views clearly showing the architectural elements described in the Architectural Resources Background report prepared by Patrick McGrew. All photographs would be mounted on acid-free archival-quality paper, and bound in a volume suitable for long-term storage. The storage volume also would contain bound-in envelopes containing a set of negatives of the photographs. Two copies of the photographic documentation volume and the Architectural Resources Background report would be delivered to the San Francisco Department of City Planning for transmittal to a repository of its choice.

IMPROVEMENT MEASURE CONSIDERED AND REJECTED BY THE PROJECT SPONSOR

- To encourage potential preservation of 2250 Geary Boulevard and 2256 Geary Boulevard, the project sponsor would make the buildings available to financially responsible parties who would relocate and rehabilitate them at another site. The acquiring party would be responsible for relocation expenses.

The project sponsor rejects the measure which would require them to make available the 2250 and 2256 Geary Boulevard buildings to parties who would relocate and rehabilitate them at their own expense, because the Eden Group has made efforts in working with interested parties to secure sites and to relocate these buildings to no avail. From the time Proposition K was placed before the voters in 1992, the Eden Group has cooperated with persons who contacted them regarding the preservation of these buildings. Together, they identified potential sites for relocating these buildings in the San Francisco Western Addition Redevelopment Plan Area. Persons interested in relocating these buildings attempted to solicit, but received no support or assistance from, other community or preservation organizations in their efforts to preserve these buildings. After four years, the SFRA released these sites for housing development. In mid-1996, the Eden Group was approached by a private party who expressed an interest in relocating these buildings. After obtaining relevant information regarding moving these buildings, he declined to proceed with their relocation.

The 2256 Geary Boulevard building is in poor condition and probably cannot be moved. Moving the 2250 Geary Boulevard Building would be costly.[1] The Eden Group has cooperated with, and expended substantial effort for, parties attempting to preserve these buildings by offering them to any interested parties over the last five years. Because of lack of interest in relocating these buildings, the project sponsor declines to proceed any further with this proposed improvement measure so that the Phase 1A/2290 Geary Boulevard Building of the proposed project may proceed without delay after certification of the FEIR and approval of the Phase 1A project by the Planning Commission. The project sponsor (Kaiser) is attempting to commence construction of its medical center in a timely manner so that the provision of needed health care to its members will not be delayed. The project sponsor believes that this measure, when demolition of these buildings has been deemed not to have a potentially significant impact on the environment, will result in such delay.

NOTES - Architectural Resources

1. *Existing Conditions Report for 2250 and 2256 Geary Boulevard*, prepared by Transatlantic Construction for the Eden Group, April 12, 1996.

B. CULTURAL RESOURCES

MITIGATION MEASURE PROPOSED AS PART OF THE PROJECT

Because of the possible presence of prehistoric or protohistoric and Later Nineteenth Century archaeological resources in the study area, and the possibility that human burials and/or associated mortuary artifacts of the old Calvary Cemetery may exist within the Kaiser Campus, the project sponsor has agreed to retain the services of an archaeologist to carry out a program of testing and monitoring of the construction sites, in coordination with the Environmental Review Officer (ERO).

- Prior to commencement of excavation and construction activities, a program of archaeological testing and evaluation to determine the presence or absence of any prehistoric, protohistoric, or historic period cultural resources of significance, or potential significance would be designed and carried out by a qualified archaeologist, in consultation with the ERO.

  The pre-construction archaeological testing procedures would consist of the placement and systematic evaluation of a series of mechanical exploratory trenches at selected locations within the campus. The program would be conducted under the supervision of a qualified archaeological consultant with documented expertise and experience in the investigation of both prehistoric/protohistoric deposits and historic period sites within an urban setting. In consultation with the ERO, the selected Principal Archaeological Investigator ("the Archaeologist") would be responsible for designing specific, appropriate testing methodologies to be implemented within the campus and selecting the precise locations to be investigated during the program of archaeological exploration and evaluation. The Archaeologist would conduct an appropriate program of laboratory analysis and interpretation upon any cultural materials recovered from the campus.

  The Archaeologist would carry out the program of on-site monitoring of all ground-disturbing activities, during which all observations would be recorded in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual on site as the project sponsor's representative. This representative would have the authority to suspend work at the site to give the Archaeologist time to investigate and evaluate archaeological resources, if any are encountered.

  If evidence of subsurface cultural resources of potential significance is found during the testing and monitoring program, the Archaeologist would immediately notify the ERO, and the project sponsor would halt any activities which the Archaeologist and the ERO

jointly determine could damage such cultural resources. Ground-disturbing activities which might damage cultural resources would be suspended for a maximum of four weeks over the course of construction at each building site. If significant cultural resources were discovered, longer suspension would be at the discretion of the ERO. The Archaeologist would consult with the ERO to determine what additional procedures would be necessary to ascertain, with the greatest specificity feasible, the age, areal parameters, cultural characteristics, stratigraphic integrity, and historical associations of the materials encountered, and to minimize potential effects on the cultural resources.

The Archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for measures to be implemented to minimize potential effects on the cultural resources. Based on this report, the ERO would recommend specific additional mitigation measures to be implemented by the project sponsor. Mitigation measures might include a site security program, additional on-site investigations by the Archaeologist, and documentation, preservation, and recovery of cultural material.

At the completion of the field and laboratory procedures, the Archaeologist would submit an appropriately detailed written report (a) describing the procedures and findings of the pre-construction archaeological testing program, (b) assessing the significance of any cultural resources recovered, (c) proposing appropriate additional procedures (if deemed necessary), and (d) recommending mitigation of adverse impacts to those cultural resources of documented significance detected within the study area. This report would be submitted directly and first to the San Francisco City Planning Department's ERO for review. Following approval by the ERO, copies would be sent to the project sponsor, the President of the Landmarks Preservation Advisory Board, and the California Archaeological Site Survey Northwest Information Center.

C. SHADOWS AND WIND

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

No significant wind impacts have been identified. The following measures could improve wind conditions that may be of concern.

Wind

Because construction of the Phase 1 and Phase 2 buildings is not predicted to result in wind currents above the threshold level of the Section 148 hazard criterion, no mitigation measures would be required. However, the wind tunnel tests reveal that potentially uncomfortable conditions do exist within the campus and that wind currents would, in some cases, be increased by the project.

- To reduce potential discomfort from winds, Kaiser would direct the project architect to anticipate westerly winds in the layout of pedestrian spaces adjacent to new buildings. The wind-reducing layouts could include street trees and other landscaping to reduce overall winds along Geary Boulevard and O'Farrell Street. Wind-sheltering elements such as trees, hedges, planters, and kiosks could be located to offer wind shelter to major pedestrian paths, particularly near building entrances. Kaiser would make a decision regarding implementation of these wind-reducing layouts during the design phase of pedestrian areas for each structure, based on the feasibility of including wind-sheltering elements in the available space.

D. TRANSPORTATION AND CIRCULATION

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

No significant project-specific transportation impacts have been identified. The following measures, although not required to mitigate significant impacts, could improve transportation conditions that may be of concern.

- As part of the site design development for the project, the appropriate on-site storage lengths at the entrances to the proposed parking garages would be provided to minimize queuing impacts. In particular, the Phase 1A/2290 Geary Boulevard garage would have a 20-ft. on-site queuing length at the Geary Boulevard entrance, and the Phase 1C/2295 Geary Boulevard garage (or Phase 2B/ near 350 St. Joseph's Avenue garage, since these two garages would share the same driveway in Phase 2) would have a 140-ft. on-site queuing length (or 40-ft. if two ticket dispensers are used) at the O'Farrell Street entrance.

- To minimize conflicts between Kaiser-related traffic using Garden Street and Sinai Memorial Chapel procession traffic which queues along eastbound Garden Street, between the Sinai parking lot to Divisadero Street, the project sponsor would:

  1) restrict the Garden Street access to the Phase 1A/2290 Geary Boulevard parking garage to employees only. The Garden Street access would be posted for left turns only. Employee access (both ingress and egress) would be prohibited between 10:00 a.m. and 4:00 p.m., during which time the driveway gates on Garden Street would be closed, and all employee vehicles would be required to use the Geary Boulevard access only. During all other hours of the day, employees would be allowed to use the Garden Street access;

  2) require all loading trucks arriving to or departing from the Phase 1A/2290 Geary Boulevard loading facility, located on Garden Street near Broderick Street, to use Broderick Street only. The project truck loading exit ramp at Garden Street would be posted for left turns only; and

  3) require the construction contractor to obtain a procession schedule from Sinai Memorial Chapel and assign an on-site supervisor to divert construction vehicles to Geary Boulevard during the procession period.

- The project sponsor would maintain their current Transportation Demand Management (TDM) program (refer to III.G. Transportation and Circulation, pp. 182 - 183) and implement, to the maximum extent feasible, the additional program elements recommended under their TDM Plan Study. Additional recommended measures include:

1) maintaining the existing local Transportation Services Management (TSM) Manager/Coordinator to establish and implement program goals;

2) promoting alternative modes of transportation (e.g., transit, vanpool, carpool, bicycle, etc.) by sponsoring Transportation Week/Day, installing a kiosk to disperse transportation-related materials, using E-Mail to transmit commute alternative information, and providing incentive programs for vanpool and carpool; and

3) promoting compressed work weeks where feasible.

Construction Phase

- To minimize conflicts between construction truck traffic and area traffic, construction truck traffic would be scheduled to avoid the evening peak (4:00 p.m. to 6:00 p.m.) commute period.

- The construction contractor would obtain a procession schedule from Sinai Memorial Chapel and assign an on-site supervisor to divert construction vehicles to Geary Boulevard during the procession period.

- Because concrete pours for mat foundations would take approximately 10 to 15 hours, all concrete pouring activities would be scheduled on a Saturday to avoid the weekday peak periods and to avoid conflict with the Sinai procession.

- The project sponsor would provide off-street parking spaces for construction workers during all the sub-phases. During Phase 1A/2290 Geary Boulevard, construction workers would not be allowed to park within the Geary Campus and would be required to park at some off-site public garage/lot located within the vicinity until the parking levels are constructed. The contractor would coordinate with Kaiser to determine the on-campus parking locations for construction workers for all other sub-phases. If sufficient campus parking spaces are not available to meet construction workers' parking demand, the contractor shall lease spaces from nearby parking garages or lots.

- To ensure that all utility work would be done at the same time, the project sponsor would request Pacific Gas & Electric Company and other utility companies, and use its best effort, to coordinate the work schedules for any relocation of utility lines during the construction phase of the project. This would minimize traffic disruptions as trenching would be done once.

IMPROVEMENT MEASURES PROPOSED BY THE PROJECT SPONSOR

- To accommodate increases in Kaiser-related pedestrians traveling between the north and south sides of Geary Boulevard and to improve pedestrian safety, the project sponsor is considering construction of a pedestrian bridge to connect Phase 1A/2290 Geary Boulevard with Phase 1C/2295 Geary Boulevard (see Figures IV.B.1 and IV.B.2, pp. 279 - 280). This construction would be concurrent with the construction of the Phase 1A/2290 Geary Boulevard building and before completion of the Phase 1C/2295 Geary Boulevard building. The pedestrian bridge would reduce the number of pedestrians generated by activities such as physical therapy, radiology, staff consultations, or medical record retrievals, who would cross Geary Boulevard at the intersection of Geary Boulevard/Divisadero Street and Geary Boulevard/St. Joseph's Avenue, and the number of pedestrians crossing Geary Boulevard at Broderick Street between St. Joseph's Avenue and Divisadero Street. It would improve safety of all Kaiser patients, employees, and visitors, especially the elderly, infirm, frail, and mobility-impaired persons, and children. A pedestrian bridge connecting Phase 1A/2290 Geary Boulevard and Phase 1C/2295 Geary Boulevard would reduce the walking distance by approximately 600 ft. and would provide shelter for pedestrians during inclement weather.

IMPROVEMENT MEASURE UNDER CONSIDERATION BY THE PROJECT SPONSOR

- Because the project would provide a substantial amount of parking in excess of demand (i.e., approximately 200 excess spaces in year 2000 and 300 excess spaces in year 2010), the project sponsor could decrease the proposed parking supply to ensure that parking facilities do not encourage traffic and parking at the site.

E. NOISE

MITIGATION MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

- The project sponsor would include in its construction contracts the following construction noise and vibration reduction requirements. Even with the inclusion of the following mitigation measures, project construction noise would be likely to temporarily raise ambient levels at the residential receptors closest to the proposed construction sites by 5 to 10 dBA during the demolition, excavation, and foundation phases of construction for each building, though this impact would be temporary and intermittent.

    1) limit construction hours to between 7:00 a.m. and 6:00 p.m., unless night work is reviewed and authorized by the Department of Public Works;

    2) require use of construction equipment with noise reduction devices, such as mufflers which are in good condition;

    3) erect temporary noise walls along portions of the construction sites facing existing residences;

    4) minimize the use of impact tools to the extent possible, and locate stationary noise sources, when feasible, away from residential areas;

    5) require use of acoustic shielding with such equipment when feasible and appropriate; and

    6) pre-drill the holes for the shoring piles.

- The project sponsor's construction contractor would conduct an inspection of the adjacent buildings prior to beginning excavation work for the proposed underground parking garages and after such work was completed. The project sponsor would notify the residents of adjacent buildings prior to the start of garage excavation activities. The project sponsor would repair or reimburse the adjacent property owners for the costs of the repair of any structural damages resulting from construction-related vibrations.

F. AIR QUALITY

MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT

- The project sponsor would require the contractor to implement the following mitigation program, developed from the BAAQMD's master list of feasible PM_{10} control measures,[1] at all building sites of the proposed project:

  1) water all active construction areas at least twice a day, or as needed to prevent visible dust plumes from blowing off-site;

  2) use tarpaulins or other effective covers for on-site storage piles and for haul trucks that travel on streets;

  3) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all *unpaved* parking areas and staging areas at construction sites;

  4) sweep all *paved* access routes, parking areas, and staging areas daily (preferably with water sweepers);

  5) sweep streets daily (preferably with water sweepers) if visible amounts of soil material are carried onto public streets; and

  6) suspend demolition and excavation activity when winds exceed 25 mph.

  The BAAQMD has defined that the implementation of the above measures would be sufficient to guarantee that emissions from construction activities would be less than significant.[2]

- The project sponsor would incorporate Best Available Control Technology (BACT) NO_x emission controls in the physical plants of the proposed facilities as required by BAAQMD regulations.

NOTES - Air Quality

1. BAAQMD, *CEQA Guidelines; Assessing the Air Quality Impacts of Projects and Plans*, April 1996, Table 2, Feasible Control Measures for Construction Emissions of PM_{10}.

2. BAAQMD, *CEQA Guidelines; Assessing the Air Quality Impacts of Projects and Plans*, April 1996, p. 13, third paragraph.

G. HAZARDOUS MATERIALS

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

No significant hazardous materials impacts have been identified. The following measures could reduce hazardous materials conditions that may be of concern.

Hazardous Materials Use

- Areas with design features that could cause accidents during transportation of hazardous materials would be designated during project design review. These designations would remain in effect during project operation, unless the use or structural features are modified appropriately. Through a combination of stated policies, training, and signage, hazardous materials transport would be prohibited from areas not meeting the suitability requirements. Prior to occupying the new buildings, Kaiser would provide its Hazardous Materials Management Plan, identifying its proposed actions under this mitigation measure, to the San Francisco Fire Department and the City Planning Department. The Fire Department would review the implementation of these plans during its occupancy inspections.

Hazardous Waste Generated

- Kaiser would follow feasible design and operational measures to prevent an undue risk of upset. Such measures would include installing appropriate security measures; minimizing waste transfer distances; eliminating, through design, physical hazards, such as tripping hazards, along waste transport corridors to loading areas; and developing and implementing Standard Operating Procedures which would include such measures as testing waste samples for compatibility before consolidation and grounding drums during consolidation.

- Kaiser would decontaminate all equipment associated with hazardous materials before transporting it to other locations. All biosafety cabinets and laboratory fume hoods would be decontaminated. Kaiser would decontaminate and fumigate the work areas.

H. UTILITIES AND COMMUNITY SERVICES

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

No significant impacts in utilities and community services have been identified. The following measures could address utilities and community services conditions that may be of concern.

Solid Waste

- To maximize diversion of the project's demolition waste from landfill space, Kaiser would evaluate reuse of existing fixtures in buildings to be demolished. Fixtures to be evaluated would include, but not be limited to, windows, doors, and hardware. Kaiser would reuse salvagable materials in the new outpatient services buildings or would sell the material to be reused elsewhere.

- Kaiser would minimize the amount of solid waste generated by the project by providing clearly marked separate recycling areas within the Phase 1A/2290 Geary Boulevard, Phase 1C/2295 Geary Boulevard, Phase 2A/1455 Divisadero, and Phase 2B/New 350 St. Joseph's Avenue outpatient and administrative services buildings for glass, aluminum, office paper, newspaper, and plastics. Kaiser would provide recycling bins for glass, aluminum, and plastic next to each beverage vending machine, in each employee lounge area and cafeteria, and in any other common area where Kaiser employees or visitors may generate recyclable material. Kaiser would provide a central area for recycling white office paper and newspaper on each floor of each proposed building. Through its Environmental Services department, Kaiser would promote recycling efforts by publicizing its recycling program to employees and visitors.

- Kaiser would minimize disposal of construction waste by including stipulations in construction contracts that require demolition, excavation, and construction waste to be hauled to a processing facility for segregation of recyclable materials. If contract stipulations allow on-site segregation, Kaiser would ensure through contract requirements that workers be instructed during each phase of construction to segregate waste as appropriate.

Broderick Utility Corridor

- Following the recommendations of Kleinfelder, Kaiser would protect utility lines in the Broderick Utility Corridor from disruption during construction of Phase 1C/2295 Geary Boulevard by encasing the utilities in a concrete vault, supporting the vault during excavation for the parking garage, and extending the foundation walls of the Phase 1C/2295 Geary Boulevard building below the utility corridor.[1] Alternatively, Kaiser may relocate the existing utility lines pursuant to a cooperative agreement between Kaiser, the City, and all of the utility easement holders in a manner that ensures continued services to affected users.

NOTES - Utilities and Community Services

1. Mike Majchrzak, Geotechnical Engineer, Kleinfelder, telephone conversation, November 13, 1995.

I. ENERGY

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

No significant energy impacts have been identified. The following measures could improve energy conditions that may be of concern.

- To reduce the amount of energy that may be lost during construction activities, Kaiser would include in all construction contracts the requirement that idling time for all construction equipment be minimized. Kaiser would require regular inspection and maintenance of construction equipment to maximize efficiency of operation.

- To reduce the project's additional transportation energy demand, Kaiser would apply the improvement measure for its existing Transportation Demand Management program found in V.D. Transportation and Circulation, p. 491 - 492.

J. SOILS, GEOLOGY, AND SEISMICITY

MITIGATION MEASURE UNDER CONSIDERATION BY THE PROJECT SPONSOR

Geology and Soils

- Measures would be taken to reduce or eliminate potential ground settlement of the surrounding areas caused by dewatering, excavation, or construction. A pre-excavation settlement-damage survey would include, at a minimum, visual inspection of existing vulnerable structures for cracks and other settlement defects, and establishment of horizontal and vertical control points on streets and buildings adjacent to the site. A monitoring program of surveying horizontal and vertical control points on streets, structures, and shoring would be followed to determine the effects of dewatering, excavation, and construction on sites adjacent to the particular building site. The project sponsor would repair, or reimburse the adjacent property owners for the costs of the repair of structural damages resulting from ground settlement caused by dewatering, excavation or construction.

IMPROVEMENT MEASURE PROPOSED AS PART OF THE PROJECT

Seismicity

- Kaiser would ensure that specific seismic safety requirements of out-patient service areas (which differ from those of purely administrative offices) would be examined by the geologist, engineer, and facility space planner, and their recommendations would be incorporated in the design of each phase of the campus expansion. Construction of earthquake-resistant infrastructure (gas, high-temperature water and steam pipes), attachment of non-structural building elements (glass, fixtures, furnishings and other contents), anchoring of heavy diagnostic and treatment equipment and storage units, and installation of additional hand-rails, emergency door mechanisms, and lighting systems are examples of the type of facilities to be included in the examination.

- An integrated emergency response plan for each building, and for the campus as a whole, would be developed by Kaiser and implemented to reduce seismic-related injuries. The plan would include public information and education about on-site life-safety features, and would be integrated into the City and County of San Francisco emergency response plans.

K. HYDROLOGY AND WATER QUALITY

IMPROVEMENT MEASURES PROPOSED AS PART OF THE PROJECT

Dewatering

- Kaiser would require in construction contracts that the contractor select the equipment and method for dewatering that would have the least impact on the groundwater level surrounding the proposed excavation. Within the excavated area the groundwater is to be maintained a minimum of 3 ft. below the bottom of the mass excavation, and a minimum of 2 ft. below all local excavations for footings, utilities, or other structures, until the weight of the structure is greater than the hydrostatic pressure.

Water Quality

- Kaiser would update its Emergency Response Plan (for spill control and cleanup) to include the Phase 1A/2290 Geary Boulevard, 1C/2295 Geary Boulevard, 2A/1455 Divisadero Street, and 2B/New 350 St. Joseph's Avenue buildings. The Plan would include updated information on notification, evacuation, response, and cleanup procedures.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21067 of the California Environmental Quality Act (CEQA), and with Sections 15040, 15081 and 15082 of the state CEQA Guidelines, the purpose of this chapter is to identify impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed project, or by other mitigation measures that could be implemented, as described in Chapter V. Mitigation Measures, pp. 486 -501.

The findings of significant impacts are subject to final determination by the City Planning Commission and San Francisco Redevelopment Agency Commission as part of the certification process for the EIR. This chapter in the Final EIR will be revised, if necessary, to reflect the City Planning Commission's and Redevelopment Agency Commission's findings.

The Level of Service (LOS) on the northbound arterial segment of Divisadero Street between Geary Boulevard and Turk Street would be degraded to LOS F by Year 2010 by cumulative traffic, with or without the Kaiser Geary Campus project. LOS F is unacceptable in the Congestion Management standard for an arterial segment. No mitigation measure is available to the project.

The NO_x emissions attributable to the project in year 2010 would be 87 lb/day, exceeding the Bay Area Air Quality Management District's threshold of 80 lb/day. Required application of Best Available Control Technology would reduce stationary source impacts to an acceptable regional level as defined by BAAQMD, but would not necessarily bring total project-related emissions (which include non-stationary sources not within the project sponsor's control) below the BAAQMD threshold of 80 lb/day. No mitigation measure is available to the project.

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